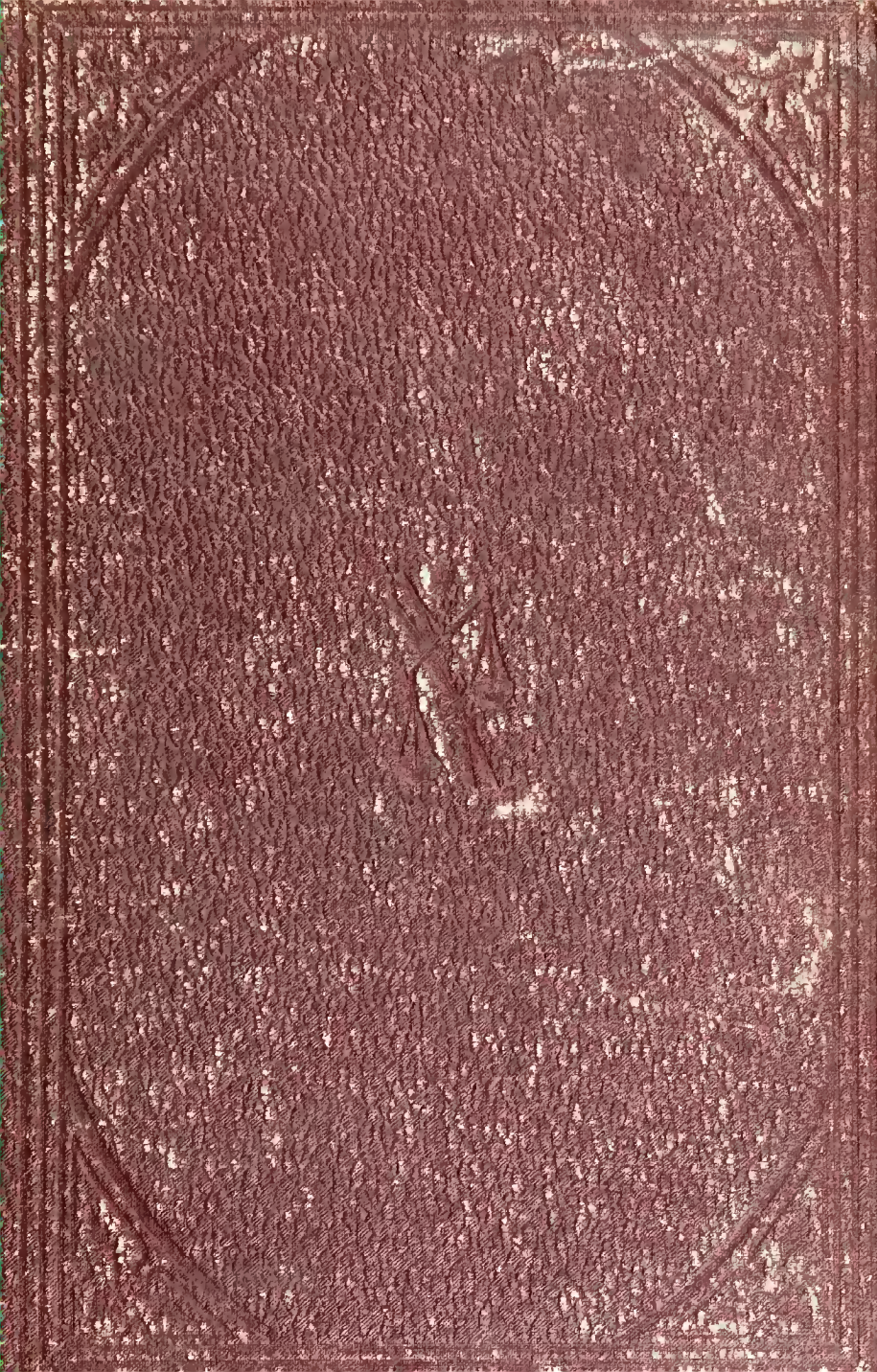
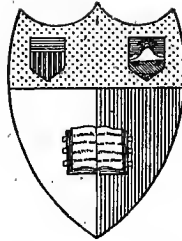






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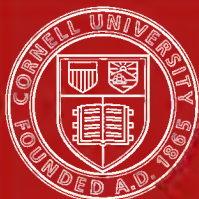
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An Unsteady Money is a Dishonest Money.

MONEY

BY

GEO. M. WESTON,

AUTHOR OF "THE SILVER QUESTION," ETC.

"It is the limitation of the quantity of money, without any reference to the cost of production, that regulates the value of each unit of money, whether fiat or metallic."

—Report (1877) of U. S. Monetary Commission.

"The value of money, of whatever kind, is measured by the cost of obtaining it after it has been produced, and not by the cost of its production, and this value is indicated by the general range of prices."—Same Report.

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TO MY SON,
MELVILLE M. WESTON.

I DEDICATE this book to you, in token of my affection for you, and in the hope that, in the new phases of monetary affairs which will arise after my day, you will be stimulated by paternal example to do your part in resisting the mischiefs of a fluctuating currency, which is the most insidious and wide-reaching evil afflicting mankind, and from which the United States have suffered more during this century than any other country.

GEO. M. WESTON.

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PREFACE.

THAT there is a necessary interdependence among all countries whose money is kept at the metallic standard, as to the average range of their prices of all articles which are dealt in internationally, is obvious, and generally recognized. That there is the same interdependence, as to the average volume at which the currencies of such countries can be maintained, must be equally true, but is not so obvious, although it has never been controverted as an abstract doctrine. It appears to me to have been too much overlooked in monetary discussions, and I have thought it useful to give in this work an unusual prominence to the doctrine itself, and to point out several of its practical applications.

A thorough realization of the truth of this doctrine will tend to moderate both hopes and fears as to the effect of the currency laws of any particular country maintaining the metallic standard, upon the average volume of its money and upon its average prices. The degree of the effect varies, of course, with the relative importance of the country, but it is in no case so great as it is commonly supposed to be. The power of a country on the metallic standard over the steadiness of the volume of its currency, is much greater, but even that power is very imperfect, inasmuch as no country on that standard can escape the influence of the changing policies of other countries, as respects the suspension or resumption of coin payments, and as respects the proportion in which they enlarge their money by the use of paper.

In respect to the paper money of this country, assuming always that it is to be maintained at the standard of the metals, the existing conditions seem opportune for adopting the principle of currency regulation, which was established in Great Britain in 1844, and has been since largely copied on

the Continent of Europe. Our paper money is now all of it, like our metallic money, National in its origin and guarantees, and the public judgment is irreversibly made up that it shall remain so. In respect to the circulating notes of the National banks, the Treasury at Washington is not merely the holder, as a trustee, of securities for their redemption ; but is by law directly charged with the duty of redeeming them, without reference to the amount of money obtainable by a sale of the securities. Our entire paper money, greenbacks and National-bank notes, is one mass, resting upon the responsibility of the Government. There is nothing in the way of dealing with it as one mass, and of maintaining its parity with coin by a central metallic reserve of dollar for dollar, for so much of it as is in excess of the quantity which will always be retained in the channels of circulation, except in those extreme contingencies, which legislators need not and ought not to take into account. In respect to that quantity of the paper money, redemption should be neither provided for nor permitted. On this system, a demand for coin by the holders of paper will not cause a destruction of money, but will merely substitute for one kind of money an equal amount of another. The total monetary volume will be absolutely steady, except as gold and silver are exported, or imported, or produced by the mines, or in other words, it will only fluctuate precisely as an exclusively metallic currency must fluctuate. The changes required to introduce this reform, can be made in such a way as not to affect, except beneficially, the National banks which are now organized. All the financial and commercial connections of the present system, can be protected against any shock, or even disturbance. It is neither desirable, nor possible, to effect the proposed reform, without respecting all existing conditions, and without conciliating all existing interests to the utmost degree consistent with the accomplishment of the object.

GEO. M. WESTON.

APRIL, 1882.

MONEY.

CHAPTER I.

THE PRIMARY IDEA OF MONEY IS THAT IT IS A MEDIUM OF EXCHANGE. IT MUST BE SOMETHING GENERALLY ACCEPTED IN EXCHANGE FOR ALL OTHER THINGS, AND ALSO FOR DEBTS, WHETHER IT IS A LEGAL TENDER FOR DEBTS OR NOT.

THE primary idea of money is, that it is something adopted as an intermediary in the exchanges which the necessities and convenience of men require them to make of the various kinds of property. It is therefore the essential and distinguishing characteristic of money, that it is a medium of exchange.

The way in which the use of money has so largely superseded barter, is in some cases historically known. But even if it were not so known in any case, the cause and nature of the transition are so entirely plain, that the statement of them has been uniform among all writers on such subjects.

When civilization has made any sensible progress, men must have occasion to exchange the

excess above their own wants of any particular thing which they may produce, for something of which they stand in need, and which is produced by others. But it would often happen that what A possesses in excess may not be wanted by B, who is the owner of something which A requires, so that a direct exchange between them would be always very difficult, and sometimes impossible. But if there existed some commodity or thing in such general demand that almost everybody would accept it in exchange for property of all kinds, a transaction between A and B would at once become possible, and it would be facilitated in proportion as the supposed commodity, or thing in general demand, was portable, susceptible of subdivision, and not liable to impairment by handling and transportation. A would exchange the excess of his own production for the supposed commodity or thing on the best terms the market admitted of, and would then have something which B would accept for whatever he had to dispose of and which A required.

In certain conditions of society, either before coin was known or where it has been exceedingly deficient in quantity, various articles have been made available as mediums of exchange. Cattle and sheep are said to have been so used in the earliest period of Roman history, and the

Latin word *pecunia*, signifying money, is said to have been derived from the Latin word *pecus*, or flock. However that may be, it is certain that cattle and sheep have been used as money in some countries at some periods. Ostrich feathers, beads, cakes of tea, etc., have also been used for the same purpose. In the first settlement of Virginia, tobacco was used, and in the first settlement of Massachusetts, bullets; and in both of these cases, the tobacco and the bullets, in addition to, and mainly in consequence of, their ready acceptance as things generally wanted and easily marketable, were made a legal tender for greater or less sums, which fact, of course, still further increased the demand for them and their availability as mediums of exchange.

Iron, lead, tin, and copper, have often been accepted moneys, independently of coinage, and independently of any laws making them a tender for debts. In such cases, this general acceptance has been based upon the general demand for them, arising from the many useful purposes to which they could be applied. At early periods, and in primitive conditions of the metallurgic art, they had a value, relatively to that of other things, greater than they now have, and they always possessed, as at present, the advantages of a convenient degree of divisibility, and of ease of transfer by weight. But a

pre-eminence beyond all comparison in acceptance as money, in all ages and countries, has been enjoyed by the two metals, gold and silver, which mankind have agreed to call noble and precious. The demand for them, based upon their beauty and useful qualities, is permanent and universal; their resistance to chemical changes, from exposures of various kinds, is very marked; and their scarcity gives them a very high degree of exchangeable value, in proportion to their weight and bulk. It is historically certain that they were used as money anterior to the practice of coining, and anterior to any law making them a tender for debts, and that their currency as a medium of exchange was originally based upon their value as commodities. They were transferred by weight, and when coining was first practised the names of coins corresponded with the names of equivalent weights of metal. In short, the principle which, in the beginning, governed the use of gold and silver as money, differed in no respect from the principle which has, at various times, governed the similar use of other commodities.

To this day, the international use of these metals as money rests upon nothing but voluntary consent and acceptance. Manifestly it cannot rest upon law, which is only the expression of the authority of a single nation, and can

have no operation outside of its exterior limits. Gold and silver are accepted everywhere, because they are everywhere more or less in demand for some purpose, or for many purposes, and for the further reason, that nations, like individuals, will accept anything which they can readily dispose of to others, although they may desire very little of it, or even none of it, for their own use. It is not at all necessary to the acceptance of gold or silver, by a particular nation, that it should use the offered metal as the material of its money, either exclusively of other material or in connection with other material. Silver is as promptly accepted in London at the current market valuation as gold is, although gold is exclusively used in the manufacture of British metallic full-tender money. Gold is as promptly accepted in Calcutta at the current market valuation as silver is, although silver is exclusively used in the manufacture of Indian metallic money. So long as London trades with the whole world its demand will never cease for silver, which is the sole material of the money of more than half of the world. The demand of India for gold will never cease, so long as it is a considerable consumer of that metal, and as long as it is accepted in England, with which the bulk of Indian foreign commerce is carried on. Gold and silver are

both promptly accepted in Italy, where neither of them is the material of the actual money in use. The case of nations is precisely like that of individuals. Nobody rejects gold or silver because he does not himself need or desire it, or because he cannot foresee that he shall ever need or desire it for any personal use. It is a sufficient reason for his accepting both, that he believes he can use either when he wishes to buy anything else which he may need or desire. Gold and silver are in fact *current* in international transactions, and it is the primary idea of money that it should be something which is *current*, or flowing easily like water.

It may be said, that what practically concerns us is not the nature of money as it has existed in the rude conditions of the first periods of all nations, or as it now exists in some parts of the world in which civilization has made little or no progress, but as it has existed and now exists in countries which have made money the subject of legislation. The regulation of money by law has been among the first steps taken by nations emerging from the barbarous state, and it is doubtless true that the nature and offices of money at the present day in our own country, and nearly all other countries, cannot be discussed without reference to law as the chief factor in the question. At the same time, it

will be found that an understanding of the use of money anterior to law throws light upon the effect of law upon that use.

In civilized countries, at the present time, all that law undertakes to do in respect to money is to prescribe what shall be a tender in the payment of debts, including debts and taxes due to the Government. At some periods, when the proper limits of law in this respect were imperfectly understood, or when there existed, or was supposed to exist, an overpowering necessity to force the use in purchases, as well as in payments, of certain kinds of money, the holders of property, and especially of food and other articles of prime necessity, have been compelled by legislation to sell them for the money lawful at the time, even if of little value in the market, and to sell at not exceeding certain prices which were also prescribed by legislation. Laws of that kind, called laws of the *maximum*, were passed during the revolutionary period in France at the end of the last century, in the hope of thereby sustaining the currency of the famous French assignats. Such laws uniformly fail in practice, and there has been no recent example of them in civilized countries.

The function of being a tender by law for private debts, and for dues and taxes to the Government, gives to anything which possesses it a

universal and constant demand within the exterior lines of the territory under the control of the law-making power. Taxes, everywhere and at all times, are equal to a sensible proportion of the earnings of labor and capital. The effect of making any particular money a tender for private debts varies a good deal with the different circumstances of different countries. Among barbarous or semi-civilized peoples debts and credits are but little known, and money is principally used as a means of making purchases. In such cases it would add little to its value to endow it with the function of being a legal tender. The effect of giving it that function increases with advancing civilization, and with an augmenting confidence in the stability of political institutions, and in the power and disposition of governments to enforce contracts and rights to property which is out of the possession of the owner. It is especially true of debts on long terms, that they are unknown except during epochs of high civilization. The system of debts due by governments, now grown to such vast proportions, was wholly unknown to the ancients. It is only within the past one hundred years that it has been at all conspicuous as an element of public affairs, and its greatest progress has been made within the past generation. To-day, the whole frame work of society, in Eu-

rope and the United States, is permeated and interlaced with public and private indebtedness on long terms. Lands are incumbered with mortgages, or charged with annuities under wills, marriage contracts, or other family settlements. The larger part of the effective ownership of all railroads belongs to the holders of their indebtedness. Life insurance, now expanded to such enormous proportions, is nothing but a vast fabric of debt, in which the payments promised are as remote in their date as the termination of lives; or of annuities, of which the commencement is deferred for a term of years, often long; while the means possessed by the insurers wherewith to meet their promises consist, for the most part, only of credits which they have granted on various pledges and securities. Without further elaborating the subject, it is altogether plain, that in Europe and in this country, the investment of anything with the quality of legal tender must create a very great demand for it.

Sometimes, the quality of legal tender given to money is limited, and so far as it is so, the resulting demand is diminished. The most familiar illustration of that is the case of small coins, below weight or standard, and which in all countries issuing them are made a tender for private debts, only for small sums, although usually made a tender for all sums to the govern-

ments issuing them. The greenbacks created in this country by the legislation of 1862, were and are a tender without limit as between individuals, but they were expressly excluded from being a tender by Government for interest on most of its bonds issued during the Civil War, and from being a tender for either the interest or principal of the bonds aggregating \$1,500,000,000, authorized by the Funding Act of July 14, 1870. So also they were excluded, until the resumption of coin payments in 1879, from being a tender to the Government for duties at the custom houses. The legal-tender power of National-bank notes in this country, does not extend to payments to the Government for custom-house duties; and in private payments it is restricted to the case of debts due to National banks, each of those institutions being obliged to accept for debts due them, not merely their own notes, but the notes of all other National banks.

Since governments have acted upon the question of money, by coining the precious metals and making them a tender for debts, and in some cases by issuing paper, either directly themselves, or through the agency of banks, and making such paper a tender for debts, many authorities restrict the term *money* to whatever is made by law a valid medium of payments. Any species of money actually current in the market

and generally accepted voluntarily in payments, although not a compulsory tender, such as the State-bank notes, formerly in use in this country, and such as our present National-bank notes, aside from their function of being a legal tender to all National banks, is, by such authorities, spoken of as *currency*, in order to distinguish it from what they regard as strictly money.

The use of the term *money*, as consisting only of what is a legal tender for all sums, has not been common in this country. The State-bank notes, formerly in use in the United States, were not a legal tender at all, but were almost universally regarded and spoken of as money, and so are to-day the National-bank notes, although no individual, and no corporation except a National bank, is compelled to accept them as a payment.

The most idle of all disputes are those which turn upon the definition of words. What is important is, that those who read, or are spoken to, should accurately understand the precise sense in which the writer or speaker uses language. In that case, the words used perform the office of conveying to the hearer or reader the ideas of the speaker or writer, and that is the only office which words are intended to perform.

In what I now propose to write upon this

general subject, I shall apply the term *money* to whatever in any country, or in any territorial division of any country, is so generally accepted as a medium of exchange, that the prices of commodities are commonly stated and understood as expressing their value in such money, and which is also, either by the force of law or by the force of circumstances and of public opinion, accepted by substantially everybody in the payment of debts.

To-day there are few persons, and perhaps none, who, in stating the present volume of money in the United States, would exclude from it the National-bank notes, or who, in stating the present volume of money in European countries, would exclude any paper currency which, without being a legal tender, is as readily accepted, in exchange and in payments, as National-bank notes are in this country. Under the system of State banks which existed in the United States prior to 1862, the notes of these banks, so long as they were not confessedly insolvent, were always treated and described as money, and indeed, at most times, constituted the bulk of the money in use. During the frequently recurring periods of their suspensions of coin payments, metallic money disappeared entirely, and there was nothing left but these notes. On a definition of money, requiring it

to be a tender by law, England had no money during the suspension of coin payments by the Bank of England, which commenced in 1797 and continued until 1821, inasmuch as its notes, although now a legal tender, were first made so in 1833. On such a definition of money as that, there is substantially no money to-day in Ireland or Scotland, in both of which countries £1 bank notes almost entirely exclude gold from circulation, and where Bank of England notes were, perhaps, never a legal tender, and certainly have not been so since the declaratory legislation of the British Parliament in 1845.

It is sufficient to make anything money in any territorial division of a country, that it is generally accepted in exchanges and payments in such division, even if not so accepted in the whole country. Examples of that kind are not to be looked for in small countries, but they have been numerous in the United States. The last example was the case of the greenbacks, which were none the less money on the Atlantic coast and in the Valley of the Mississippi, because they were not money on the Pacific Coast prior to the coin resumption of 1879. The general fact was, throughout the entire history of the State-bank system, that the notes of the Southern and Western banks were money, only within wider or narrower limits in their vici-

nage. During the war of 1812-15 with Great Britain, the banks of the extreme North-East maintained coin payments, which were suspended elsewhere, and that made two sectional currencies of seriously unequal value. The same thing happened in 1838, when, in exactly one year after the general suspension of May, 1837, the banks of New York resumed coin payments, while the banks to the south and west of it remained, for a considerable time afterward, in a state of suspension, thus again creating two sectional currencies, the value of which was unequal, although less seriously so than in the case of 1812-15.

Patterson (*Economy of Capital*, 1864) says:

Scotch bank notes do not circulate in the other parts of the kingdom. In England, too, there are many provincial banks, the notes of each of which circulate readily in the district where the issuing bank is situated, but are looked upon with suspicion elsewhere.

We have had in this country, under the old State-bank system, many examples of bank notes, whose acceptance as money did not extend beyond the limits of the individual State in which they were issued, while within those limits their acceptance was ready and substantially universal. It is quite possible to conceive that the greater part of the currency of a country might consist of money not current outside of limited portions of it.

We have to-day, in the United States, a silver trade dollar, not invested with any legal-tender capacity whatever, and not accepted and treated as money outside of a very few restricted localities. Yet its use as such within those limits, is sufficient to employ the small number in existence, computed at from six to eight millions; and if they were exported, or melted down, supplying their place would make a corresponding draft upon other descriptions of money, and would reduce by so much the total monetary circulation of the country.

While the function of being a tender by law does not seem to be essentially required in order to make anything money, it would also seem that the possession of that function does not always and necessarily cause anything to be the money, or even a part of the money, in actual use in a country. The circumstances which may exclude it from employment are quite diverse in their nature. It may be so excluded because it possesses too much value, or because it possesses too little.

The gold sovereign was a legal tender in England, but formed no part of the actual money of England from 1797 to 1821, being effectually expelled by its dearness as compared with the Bank of England notes. American coins of gold were a legal tender in this country from

1862 to 1879, as were American silver dollars from 1862 to 1874, but they were of so much more value than greenbacks of the same denominations, that they were practically not used at all in payments during the periods named, excepting in the few cases in which the greenbacks could not be legally used, as in paying custom-house duties and the interest on certain classes of Government bonds, and excepting also on the Pacific Coast, where a preference for coin was sufficiently universal and decided to prevent the actual use of greenbacks. During the same periods, American coins were also out of use as mediums of exchange in making purchases, excepting on the Pacific Coast, and excepting also a very limited amount employed in buying some imported articles in two or three Atlantic-seaboard cities. With these exceptions, they formed no part of the volume of the actual currency, and therefore exerted hardly any appreciable influence upon the prices of the country.

The English case just cited is an example of legal-tender coins being prevented from being actually current money, by their appreciation relatively to a paper currency which was the actual medium of exchange, and which was accepted universally in payments, not by force of law, but by the stress of surrounding circum-

stances. There have been many similar cases in this country, of the expulsion of the metals by the notes of the old State banks, when they were in a condition of suspension.

The American case just cited, of the expulsion from use of the metals by the greenbacks from 1862 to 1879, is an example of legal-tender coins being prevented from being actually current money, by their appreciation relatively to another legal tender made of paper.

The quite contrary case may be supposed, and has sometimes happened, of legal tenders ceasing to be actually current money by such an extreme degree of depreciation and by such a wide-spread apprehension of their impending worthlessness, as would cause their general rejection as a medium of exchange. The paper currency of the War of American Independence, although sustained by legal-tender laws in many of the States, had reached that stage of thoroughly exhausted vitality just before the time when, to quote the graphic phrase of Mr. Jefferson, it "expired without a groan."

CHAPTER II.

MONEY AND COMMODITIES MEASURE THE VALUE OF EACH OTHER, BY BEING VOLUNTARILY INTERCHANGED IN THE MARKET. THE FACT OF THE VALUE OF ANY KIND OF MONEY IS SETTLED BY ITS ACCEPTANCE IN EXCHANGE FOR OTHER THINGS, AND THE AMOUNT OF ITS VALUE AT EVERY GIVEN TIME AND PLACE IS DETERMINED BY ITS PURCHASING POWER.

WHENEVER the use of a common medium of exchange, which is the primary idea of money, has superseded barter, the exchange in the market of services, commodities, and property of all kinds, for money, is termed *a sale*, and the amount of money received in return is called *the price* of whatever is sold. The market value of things is thus naturally and ordinarily stated in terms of money, and hence comes the familiar phrase that money is the measure of values. But nothing really happens in any case of the use of money, except that a certain quantity of a given commodity is voluntarily exchanged for a given quantity of money. In such a transaction the money does truly measure the value of

the commodity, but only in the same sense that the commodity measures the value of the money.

From the fact that the market value of things is commonly expressed in terms of money, that is to say, by stating how much money they can be sold for, the most ordinary and convenient way in which we are accustomed to apprehend the value of commodities, relatively to each other, is to compare their respective prices. When wheat is one dollar per bushel and corn half a dollar per bushel on the same day and in the same market, the relative value of the two grains is generally stated by giving their respective prices, rather than by saying that wheat is worth twice as much as corn, measure for measure. Some writers say that this brings everything to a common denominator, which is money, and that sufficiently well describes the case.

Money, as a measure of the value of other things, is frequently likened to the yard stick which measures the length of a piece of cloth. There is no particular fault to be found with that illustration. In any case of illustrating one thing by another somewhat analogous thing, it is sufficient that there be leading points of resemblance, and the illustration is not necessarily to be condemned because there are some points of diversity.

The measuring of a piece of cloth with a yard stick is done by placing the stick against the cloth. The operation makes no change in the ownership of either the cloth or the stick, and the length of the piece of cloth which is ascertained by the operation is not merely its length on the day when, or at the place in which, the operation is performed, but will be its length on any subsequent day, or at any other place where the same operation may be repeated.

In measuring the value of a commodity by selling it, or buying it, there is a change of ownership of both the commodity and the purchase money. The market value in money of the commodity, and at the same time the market value in that particular commodity of the money, is ascertained by the transaction, but only for the day and at the place where it occurs, and not for all days and places. The operation of measuring the money value of a commodity, or in other words, of ascertaining the price of a commodity, is an exchange in the market of the commodity for money, and that necessarily shows how much money is the market equivalent for the commodity. All this seems too plain to require any iteration or amplification, but like everything else relating to money, it has been confused by the endless mis-

conceptions and jugglings with language of writers upon such subjects.

Some writers of really considerable merit have fallen into the error of supposing that the fact that money must have a value equivalent to that of the commodity for which it will exchange, and the fact that money has the function of measuring the value of things, are two facts, when they are only two expressions of one and the same fact. Money can measure things in no other way than by being exchanged for them in the market, upon the basis of an equivalency which is determined between buyers and sellers, from whose concurring judgment upon the question of equivalency there is no possibility of an appeal to any other tribunal.

Chevalier (*Fall of Gold*, section 2, chapter 1) - says of money:

It serves in exchanges as a common measure of value, because it is with it that, in transactions, all other commodities are compared. But it is not merely a measure; it figures in exchanges in another capacity, that of a material recompense or equivalent. The twenty *francs* with which a *hectolitre* of wheat can ordinarily be bought, and which are also at the present moment the price of a *hectolitre* of common wine in many departments, give the measure of the value of the wheat and wine, as compared with other commodities of which the price is known; but they do more, they serve, at the moment of the transaction, and in the market where it takes place, as an equivalent for the *hectolitre* of wheat or the *hectolitre* of wine. Money is not a sign, and it is no more true to say that the twenty *francs* are the signs of the *hectolitre* of wheat or the

hectolitre of wine, than it would be to pretend that the *hectolitre* of wheat or wine is the sign of the twenty *francs*. The definition of the word money which I have given, namely, that it is at once a measure and an equivalent, is that which is acknowledged by all modern authorities.

The same idea, that two separate and independent conditions are imposed upon money, by the requirement that it shall be "at once a measure and an equivalent," is distinctly found, although less broadly stated, in the following definition of money given in Lord Liverpool's letter to the King (1805) on the coinage:

The money or coin of a country is the standard measure by which the value of all things bought and sold is regulated and ascertained; and is itself, at the same time, the value or equivalent for which goods are exchanged, and in which contracts are generally made payable.

The truth plainly is, that in the use of money nothing happens except the acceptance in the market of a given quantity of it, for a given quantity of some commodity. There is no other measuring than that, as between the money and the commodity. Money measures the value of a commodity by being accepted as an equivalent for it. No such transaction "*regulates*" the relative values of the money and the commodity at all times and places, or at any other time and place, but merely "*ascertains*" their relative values at the time and place of the occurrence of the transaction.

As exchanges in the market, between money and commodities, are the voluntary acts of rational beings, the things exchanged must have the same market value, determined, as all market values are, by supply and demand, and by what has been described as the "chaffering between buyers and sellers." There is nothing mysterious about the use of money in the market, or which differs in any essential principle from the exchange of one commodity for another. In both cases, there is an interchange of two things between two parties, on terms agreed to by both, and not until each of them has, in some way satisfactory and convincing to himself, arrived at the conclusion that he cannot at the same time and place obtain better terms. The buyer gives the least amount of money which will command the commodity which he wants, while on the other hand the seller does not part with the commodity until he receives the largest obtainable price. It is in this way that the value of each is compared with that of the other, and may be expressed in terms of the other, and in respect to the commodity is always expressed in terms of the other. This measuring of a commodity by money is a measuring of their respective values, so much money for such a quantity of the commodity, and the equation is determined by the infallible test of

the market. If there is anything which it would seem to be impossible to mystify by subtlety and metaphysics, it is value in exchange, which is merely a market fact, which all men may readily know, either by going into the market themselves, or by obtaining the market quotations. In the sense of any sound economical discussion, the popular saying that "anything is worth what it will bring," embodies all the possible wisdom on the subject, and it is equally true *e converso* that money is always worth, at any given time and place, whatever can then and there be purchased with it.

Many writers confuse themselves by a distinction of money into two kinds, a value money and a non-value money. It will not be possible for anything without value to be money, until it is possible to find markets where men congregate for the purpose of making a gratuitous distribution of their commodities. No such markets will ever be found, because, from the nature of things, they can never exist. Whatever is accepted as money in the market is, by the mere fact of such acceptance, conclusively proved to possess value at the time and place, since men carry their commodities to market for the purpose of selling them and not for the purpose of giving them away. Money can measure commodities in no other than by being ex-

changed for them, and it must therefore possess value, inasmuch as men will not part with one value without receiving another in return.

Those who distinguish between a value money and a non-value money, must certainly attach to the term *value* some meaning which is not recognized in economical discussions, but it is not always easy to understand precisely what this added or varied meaning is. At some times they say that the value which money must have, in order to be a value money, is a "real" value, and at other times they say that it is an "intrinsic" value, and at still other times they say that it is a "commercial" value, in the sense of a value recognized in international trade. It is apparent that they mean by "real" and "intrinsic" value, in some cases, the salable value of the material of which money is made, and in other cases the possession by the material of qualities practically and substantially useful in other employments than as money. But whatever they may intend by these phrases, or by any similar phrases, they give to the term *value* a meaning which it does not possess as it is used in economical discussions. The value of anything in exchange, is the value which it will actually command in the market at the time and place of the exchange. Value in exchange means precisely that, and nothing more. The

value of a thing is not what it ought to command in the market, but what it does command as a matter of fact. Articles may and do have value in the market which are not merely destitute of any really useful quality, but which are positively hurtful and mischievous to mankind. Articles may have value, when the material of which they are made is worthless from abundance, or other cause; and they may have value in some markets and at some times when they possess none in other markets and at other times. What is true in these respects as to commodities, is equally true as to services, which often possess a market value, when they possess no real or intrinsic worth, and even when they are degrading to those who perform them, and demoralizing or physically injurious to those for whom they are performed. Theological, medical, literary, and other mountebanks, whom most men of sense would take considerable pains to avoid, do nevertheless often obtain high degrees of remuneration for the tricks of their respective avocations. The vendors of no commodity, and of no species of service, however useless or injurious, or even vile, are excluded from the benefit of the rule that everything is worth what it will bring.

There is nothing new under the sun, and the disputations about the nature of money which

are carried on to-day, are the same which are known to have been carried on as far back as we have any account of the reasonings and discussions of mankind. In what purports to be a dialogue of Socrates, we find him referring to the leather money of Carthage, the iron money of Sparta, and the pebble money of Ethiopia, and explaining to his hearers that such money, although without value in other places, would, like gold and silver, command everything in the places where it was current, and therefore possessed in those places a value which was of the same nature as that of gold and silver.

The "commercial" value of any species of money, in the sense of its value in foreign countries, may or may not have an indirect effect upon its value in a home market; but after all, it is the actual value of such money in the home market, as determined by all the various causes which control value, which either does or ought to influence buyers and sellers in that market. The price of wheat in New York on any given day is determined by the stock on hand, the current receipts, the anticipated crops, and many other circumstances of which the demand of exporters is one, but it is the actual price, however controlled, which a purchaser must pay. It is the same with money. Its value in New York on any given day is what

it will then buy in that market, although among the circumstances which determine how much it will buy, may be its purchasing power elsewhere.

As will have been seen from the foregoing quotation from Chevalier's *Fall of Gold*, he thought it worth his while to point out the absurdity of the idea that money is a mere *sign* of value. It seems to be quite sufficient to show what money actually is, without wasting time upon the endless vagaries of political economists upon that subject. Everybody possessing ordinary intelligence, who has ever accepted money in exchange for property or services, knows that he accepted it, not as a sign of value, but in the belief that it possessed a real, actual, substantial and present value in the market, and that he could never have been persuaded to make the exchange upon any other view of the case. Every such person also knows that in deciding whether the money offered had value, and if so, how much, he treated it as a simple question of fact to be settled by the test of the market, and without reference to metaphysical subtleties as to the material of which the money might happen to have been made, the cost of its production, its currency in other countries, or the nature of the value, whether intrinsic or extrinsic, whatever may be meant by this last distinction.

It is sometimes said of money that, in addition to its being a measure of the value of any commodity for which it is exchanged, it has another distinct and independent function as a scale of valuation, in the case of a transaction of mutual buying and selling between two parties, when there is no transfer of money from either party to the other. This is the vain refinement of making distinctions where there is no difference. There can be no market ascertainment of the money value of a commodity, except by the concurring agreement of a seller to accept a certain price, and of a buyer to pay it. Such an agreement is in no wise affected by an additional agreement, which is often made, that the payment of the price may be deferred and remain a debt charge for a certain time. Nor is it affected by an express agreement, or a tacit understanding, that the seller, will in turn, purchase an equal amount from the buyer. Nor is it affected by the circumstance, if it actually occurs, that the seller does, on the spot, purchase an equal amount from the buyer. There can be no item of debt or credit in a mutual account of that kind, which does not arise out of a complete sale. In respect to every item of it, money has performed its office of measuring the value of the commodity, by being accepted in exchange for it, in precisely the same way

in which it would have performed that office, if there had been only one single act of buying and selling between the parties. In transactions involving mutual sales and purchases, it never enters into the conception of the parties themselves, that they are making any unaccustomed use of money as a scale of valuation. They conceive themselves to be engaged in nothing except the familiar acts of buying and selling, and their conception of the case is exactly the right one.

Money is frequently said to be "the standard of value," which is not incorrect, provided nothing more is intended by it, or understood by it, than that money is a measure of the value of commodities and of services at the time and place of its exchange for them. But oftentimes the phrase "standard of value" is intended to mean, or is accepted as meaning, that money is something which never varies, and that when there is a fluctuation of general prices, the change of value is always in the things sold, and never in the money for which they are sold. John Locke, two centuries ago, described that error as common in his time, although, as he said:

If you increase, or lessen, the quantity of money current in traffic in any place, then the alteration of value is in the money.

Money being looked upon as the standing measure of other commodities, men consider and speak of it still as if it were

a standing measure, although when it has varied its quantity it is plain it is not.

A bushel or other measure, with the capacity of a prescribed number of cubic inches, will always hold the same quantity of wheat, but there never yet has been found any unit of money, pound sterling, dollar, franc, or rupee, whether made of gold, silver, or paper, which will always buy the same quantity of wheat. The change is sometimes in the conditions surrounding the supply and consumption of the wheat, sometimes in the money, and sometimes in both. Money is not a "standing measure" like a bushel, but it is a measure by being the accepted medium of exchange for which everything is sold, and which, in turn, will buy anything which is for sale, so that the market values of everything, at any given time and place, are expressed in terms of money—that is to say, by their prices. But prices are fixed only by actual exchanges, and only for the time and place where such exchanges are made. There can be no other intelligible idea of the value of a medium of exchange than its purchasing power, as determined and expressed by the general range of prices, which is subject to constant and sometimes very great fluctuations.

If money can be properly spoken of as a "*standing measure*," or as a "*standard measure*,"

which last was the phrase of Lord Liverpool, it can only be in the sense that it is the standard by which men commonly measure the value of everything else. The value of things, measured against money in exchanges, and expressed in terms of money, is their price, and it is without doubt true that men ordinarily apprehend the relative valuation of things by comparing their relative prices. But men do not make the mistake of supposing that the price of a thing, as ascertained for to-day by measuring it against money, was necessarily its price a year ago, or must necessarily be its price a year hence.

CHAPTER III.

THE VALUE OF EVERY SPECIES OF MONEY IS DETERMINED SOLELY BY ITS QUANTITY. GOLD AND SILVER ARE PRECIOUS BECAUSE THEY ARE SCARCE. BY A SUFFICIENT LIMITATION OF THE SUPPLY, PAPER MONEY CAN BE MADE AS VALUABLE AS GOLD AND SILVER, AND, IF DESIRED, MORE VALUABLE.

It must be as true in respect to money as to everything else, that its value in exchange depends upon the proportion between the supply of it and the demand for it. There is nothing in the nature of money which takes it out of the operation of the rule that price depends upon the relative numbers and eagerness of buyers and sellers. Value, as a term used in respect to money, is the same thing as price as a term used in respect to commodities, and the same "chaffering in the market" of vendors and purchasers determines the value of money, which determines the prices of everything else.

That the supply of money, and that only, determines its value, when the uses for it are the

same, or in other words, when the demand for it is the same, has been recognized in all ages by the general judgment of mankind and by substantially all accepted authorities on the subject.

In respect to metallic money, it has never been doubted that the falling prices in Europe, or what is the same thing, the rising value of money during the Middle Ages, should be attributed to the gradual using up of the large stocks of gold and silver, which had been accumulated in the Roman Empire, nor has it ever been doubted that the great rise in prices which followed the discovery of America was caused by the working of the gold and silver mines of the New World. In our own immediate times nobody ever thought of ascribing the rise of metallic prices which followed the gold discoveries in California and Australia, and continued for about sixteen years, to any other cause than a resulting increase of the volume of metallic money which was temporarily out of proportion to the increase of the demand for such money. Nor has anybody doubted that among the causes of the subsequent, and still continuing, depression of metallic prices in the commercial world, have been the two facts: (1) that the aggregate production of the precious metals has been stationary or declining during the last twelve or fifteen years, while

the population and exchanges of the world have been rapidly increasing; and (2) that in consequence of the demonetization of silver since 1871 in several countries, the performance of the monetary function has been thrown exclusively upon gold in such countries, thus necessarily enhancing its value and reducing gold prices, not only in such countries, but in all countries, inasmuch as prices the world over in the same metal tend constantly to an equilibrium.

The same principle, that, other things being equal, the value of money depends upon its quantity, which has been accepted by mankind as true in respect to metallic money, has been equally accepted by them in respect to paper money. Nobody ever attributed the continuous depreciation and final worthlessness of the assignats of the French Revolution, of the Continental bills of the American Revolution, or of the circulating paper of the Southern Confederate States, to anything except enormously excessive issues. In respect to the Russian paper rouble, which has never, during the one hundred years of its existence, become worthless, its varying degrees of depreciation have been uniformly ascribed to the varying amounts of it in circulation, and nobody was surprised to see its value falling as its volume increased during the recent war between Russia and Turkey.

In respect to the greenback currency established in this country in 1862, all the views taken of it and all the propositions made in respect to it, from that time to the present, have involved the general recognition of the principle that the value of any money depends, other things being equal, upon its quantity. In the outset, it was attempted to establish confidence in its value by Congressional pledges (some of which were not observed) as to the maximum issue of it, and in the Act passed in 1875, intended to raise it to a parity with coin, there was a provision for a gradual, monthly contraction of the volume of it. Among the persons competent to form a correct opinion upon such matters, there has been a universal concurrence in the view, that conspicuous among the causes which raised its value, from an extreme point of depression during the Civil War, to a substantial parity with silver in 1876 and 1877, and to a substantial parity with gold in the last half of 1878, was the contraction of its volume relatively to the population using it, and to the exchanges in which it was employed. This contraction was sudden and great when the National authority was restored, in 1865, over the large section of the country from which the greenbacks had before been excluded, and was subsequently con-

tinuous and large from the expansion of population in all sections of the country. Altogether, the proportion of the population using the greenback to the volume of the greenbacks, was fully twice as great in 1876-7-8 as it was in 1863-4, before the collapse of the Southern Confederacy, and the effect of that was precisely the same as if the volume of the greenbacks had been reduced one-half, and if the population using it had remained stationary. All this was so well understood that it was insisted upon and admitted on all sides to be true, in the discussions immediately preceding the passage of the coin-resumption law of 1875, that without any contraction of the then volume of greenbacks, and without taking any step directly appreciating their value, "the country would grow up to them," as the phrase was, until the point of a parity with coin should be reached. That this was true as a scientific proposition was not denied, but the objections to it as a practical proposition, which prevailed with the public, were, that the time required before "the country would grow up" to the greenbacks was too long, and furthermore, and this was the most effective objection, that the steadiness of Congress, in keeping the volume of the greenbacks within their then maximum limit, during the period necessary for the operation, could not be

relied on. In short, all intelligent discussion of the question of the greenbacks, since 1862, has involved the admissions that their value depends upon the proportion between their quantity, on the one side, and the population by whom, and the exchanges in which, they are employed, on the other side. And to-day, it is among the objections to them, and an objection which is by no means the least vehemently urged, that so long as they are in existence at all, there is a constant danger that their volume may be increased, so as to bring on a depreciation of the currency and an unsound inflation of prices.

Mr. Calhoun said, in 1837, that "a paper currency ought to rest on demand and supply simply, which regulate the value of everything else," and what he proposed was a Government paper issue, not controlled as to its value by redeemability in coin, but regulated, as to its supply, by being paid out only to those who would voluntarily accept it in lieu of coin, and by receiving it for all taxes and dues to the public treasury:

While it is true that a scientific proposition should be accepted only upon an intelligent appreciation of the reasons which support it, and never merely by faith in authorities, however respectable, it will still not be amiss to show

that the common judgment of mankind—that the value of money is fixed by the proportion between its supply and the demand for it—corresponds with the opinions of those who have made the subject a special study, and whose capacity to arrive at correct results has been the most universally recognized.

Of ancient authorities, it may suffice to quote the following from the Pandects of Justinian, which compresses the proposition into a single sentence: "This material [the metal selected for money] being officially coined, circulates and holds its power, not so much from its substance, as from its quantity."

John Locke, nearly two hundred years ago, said :

Gold and silver, procuring what we want or desire, only by their quantity, it is evident that the intrinsic value of gold and silver, is nothing but their quantity. . . .

Supposing in any island separate from the commerce of the rest of mankind, if gold and silver, or whatever else (so it be lasting) be their money, if they have but a certain quantity of it, and can get no more, that will be a steady, standing measure of the value of all other things. . . .

Money, while the same quantity of it is passing up and down the kingdom in trade, is really a standing measure of the falling and rising value of other things, in reference to one another; and the alteration of price is truly in them only. But if you increase or lessen the quantity of money current in traffic, in any place, then the alteration of value is in the money.

Sixty years ago, Ricardo (*Principles of Political Economy and Taxation*, chapter 25), said :

While the State coins money and charges no seigniorage, money will be of the same value as any other piece of the same metal of equal weight and fineness; but if the State charges a seigniorage for coinage, the coined piece of money will generally exceed the value of the uncoined piece of metal by the whole seigniorage charged.

While the State alone coins, there can be no limit to this charge for seigniorage; for, by limiting the quantity of coin, it can be suited to any conceivable value.

It is on this principle that paper money circulates; the whole charge for paper money may be considered as seigniorage. Though it has no intrinsic value, yet by limiting its quantity its value in exchange is as great as an equal denomination of coin or of bullion in that coin. On the same principle too, namely, by a limitation of the quantity, a debased coin would circulate at the value it should have if it were of legal weight and fineness, not at the value of the quantity of metal which it actually contained.

It is not necessary that paper money should be payable in specie to secure its value; it is only necessary that its quantity should be regulated according to the value of the metal which is declared to be its standard.

A. J. Warner, in his able and exhaustive essay upon the *Appreciation of Money*, published in 1877, gives a very full collection of the opinions upon this subject of the most eminent of the more recent British writers upon political economy, from which I will make a few selections as examples of the whole.

McLeod says:

It [inconvertible paper] becomes in all respects equivalent to a new standard, just as much as gold or silver, and its value will be affected by the same principles as these two, viz.: by the sole question of the quantity of it in circulation compared to the operations it represents.

J. R. McCulloch says:

It is plain, as well from the principles already stated, as from experience, that the mere limitation of the quantity of paper made legal tender is quite sufficient to preserve its value on a par with the value of gold, or to raise it higher.

The use of a circulating medium is indispensable, and its value, supposing the demand to be constant, is in all cases inversely as the quantity in circulation.

John Stuart Mill says :

If the obligation of keeping up the value of the paper to that of gold were suspended, . . . a sufficient security against any considerable alteration of the currency will be found . . . in keeping the quantity of it the same.

McLaren, in his *History of the Currency*, supposes the case of a government inconvertible paper issued in England, until it expelled all the gold, but not exceeding England's "fair share of the gold of the world." Upon such a supposed case he observes :

This paper would, according to all authority, supply the place of the gold, and no change would be made in prices.

It seems almost superfluous to observe, that to say that, "no change would be made in prices," is the same thing as to say, that no change would be made in the value of the money, inasmuch as it is only in the prices of commodities that the value of money is ascertained and expressed. Commodities are worth what they will sell for, and money is worth what it will buy.

In respect to gold and silver their utility in

meeting certain wants and gratifying certain tastes of mankind, depends upon the qualities which those metals possess, but the value in exchange of specified weights of them depends upon their quantity. They are precious because they are scarce. Comparing silver with gold, their relative values, pound for pound, are just about inversely as the quantities which have been mined and are still in existence. According to the computations of Soetbeer, the total production, from 1493 to the end of 1880, has been, of gold 22,587,235 pounds avoirdupois, and of silver 419,583,515 pounds, or in about the proportion of one to eighteen and a-half. In respect to the quality of compressing a large value into a small bulk and weight, they are both well fitted for money, but they possess that quality only because they are rarely found, are ordinarily not mined except with great labor and cost, and have, so far in the experience of mankind, been obtained only in very limited amounts. With those persons who regard depreciation as the only mischief which can befall the currency, the degree of confidence which is felt in gold and silver as a sound money for the future, is, when sifted to the bottom, nothing but the degree of confidence which is felt, that what has been true in all past times, of which we historically know anything, will con-

tinue to be true, and that they will hereafter, as heretofore, be precious by being scarce. That the confidence in the future value of these metals is only a confidence in their continued rarity, has been twice shown within thirty years. In the first years of the California and Australian discoveries, it was extensively apprehended that the value of metallic money would be suddenly and disastrously depreciated by a flood of gold. More recently, it was the mines of Nevada which were supposed to menace the same calamity by a flood of the other metal. Among another class of persons who regard the appreciation of money as a mischief much greater than its depreciation, and much more likely to occur, the apprehension is known to be general at the present time, that the production of the metals will not increase the stock proportionately to the increased monetary wants of mankind. But however much these two classes of persons may disagree as to the facts and probabilities of the situation, they agree entirely in the fundamental doctrine that the value of metallic money is governed, other things being equal, by its quantity.

Of the truth of that doctrine, we have had, since 1874, a very striking illustration in the value above its bullion value which has been given to silver full-tender money in the States

of the Latin Union, Holland and the United States, by controlling its quantity through a limitation of the coinage. In the countries referred to there is no redemption, or promise of redemption, of the full-tender silver money. Its excess of value above its bullion value, resting upon nothing but a government restriction of its quantity, ranges from fifteen to twenty-five per cent., and there is no theoretical limit to the degree to which the excess may be carried. Practically, it must not be carried to a point which would tempt private coinage, and thereby break down the control of its amount by the public authorities. If the French silver five-franc piece was worth in the market two or three times as much as the bullion out of which it is manufactured, the temptation to the surreptitious manufacture by individuals of a coin identical in all respects and not distinguishable from it by any mechanical or chemical test, would incite efforts in that direction, which no official vigilance would be likely to prevent. But if the government monopoly and control of the coinage could be maintained under all circumstances, the market value of the five-franc coin could just as well be maintained at 100 for one of the bullion value, as at 100 for eighty-three, which is the actual ratio while I am writing.

The principle upon which a government lim-

itation of quantity controls the value to-day of full-tender silver coins in so many countries, including our own, is precisely the same as that upon which the limitation of quantity regulates to-day the value of government irredeemable paper money in Russia, Brazil, and many other countries, and might regulate it in all countries. In both cases, the value of the money depends upon the quantity issued, and not on the cost or material. If to-day there are circulating in France 600,000,000 silver five-franc pieces, which is the reputed number, an issue of an equal number of irredeemable paper five-franc pieces, with equal functions of legal tender, could be substituted for the silver, and maintained at the same value by the same expedient of refusing to issue any more. It is plain that, in such cases, the advantage of economy is on the side of issuing paper. It is, however, urged in favor of the use, in such cases, of metal, the value of which must, in practice, approximate the value of the money, that its greater cost diminishes the tendency to over issues, which, in the opinion of many persons, is so overpowering and incurable, in respect to government paper money, as to constitute a fatal objection to it.

While the proposition, that the value of money depends upon demand and supply, may be laid down broadly and without exception, the other

proposition, that its value depends upon the proportion between the quantity in existence, on the one side, and the population by which, and the exchanges in which, it is employed, on the other, requires the qualification that other things be assumed to be equal. The reasons for that distinction are (1) that the quantity of money in existence is not exactly the same thing as the supply of it in the market, and (2) that the demand for money is rarely, if ever, equal in different countries having equal populations and exchanges.

Money that is hoarded and not in use is no more a part of the supply for the time being than if it did not exist. Such hoarding may result from the fear of impending political convulsions, and from many other causes, but most frequently results from falling prices and the stagnation in business which always accompanies falling prices. Idle money yields no income, but even that is preferable to the positive loss of buying in declining markets. In the reversed condition of rising prices, the holders of money are eager to invest it in property and commodities, so as to reap a gain. It thus happens that the proportion between the quantity of money appearing in the markets and the quantity in existence varies at different times. It is often said that

the circulation of money is more active at some times than at others, but that is only another mode of stating the fact, that a greater portion of it is in active use at some times than at others. And the rule laid down by many writers that the effect of money upon prices is the result, not of the one force of its quantity, but of the two forces of its quantity and of the rapidity of its circulation, is only another mode of stating the fact that only that part of the existing money which is in use produces for the time being an effect upon prices. The rapidity of the movement of money is not of the nature of the rapidity of a horse, or of a locomotive. A difference in the degree of the rapidity of the circulation of money, is only a difference in the number and length of the hoardings which may intervene between one use of it in purchasing, and the next succeeding same use of it.

That different countries with the same population and exchanges do not require the same amount of money to maintain the same general scale of prices, is a very familiar fact. Some countries have brought the contrivances for economizing the use of money, such as clearing houses and the system of bank deposits and checks payable to bearer, to a high degree of perfection. In other countries they are less

known. France and England, two highly civilized and commercial countries which are separated by only a narrow channel, present a very marked contrast in this particular. Relatively to population France uses perhaps twice as much money as England.

But all allowances being made for modifying circumstances, it is true of every species of money as John Locke said it was true of gold and silver money, that its value is "nothing but its quantity." The necessity for a medium of exchange in any condition of society at all above downright barbarism, creates the demand for money, and the limitation upon its supply furnishes the other factor of its worth in the market.

In respect to gold and silver money (which includes paper strictly representing it dollar for dollar), the limitation of supply is provided by nature.

In respect to government *fiat* paper money, the limitation is prescribed by law.

In respect to bank-note paper money redeemable in coin, on the system of banking long known and apparently still approved in this country, the limitation is the amount which can be kept in circulation consistently with maintaining its redemption.

The limitations upon the supply of gold and

silver money, and of bank-note redeemable money, are necessarily and from the nature of them, varying and unstable. The fluctuations in the yield of the mines, and especially of gold, are enormous. The quantity of redeemable bank notes is uniformly increased to the highest possible maximum compatible with their redemption. In the amount of them kept in circulation, regulated upon that principle, there is always either an ebb or a flow, but unfortunately without the regularity of the tides.

There is nothing in the nature of the limitation upon the supply of *fiat* paper money, to make it necessarily an unstable one. But it must be conceded that it has often proved unreliable and mischievous in practice, and that it is likely to prove so hereafter, except under conditions of popular intelligence and of integrity in governments, which are found in very few countries.

CHAPTER IV.

THE VALUE OF MONEY DOES NOT DEPEND UPON ITS MATERIAL OR COST OF PRODUCTION, BUT UPON ITS FUNCTIONS, AND UPON THE LIMITATION OF ITS QUANTITY.

THE value in exchange of paper money, whether redeemable in coin or irredeemable, and whether it has a forced circulation as a legal tender or a circulation merely voluntary and by common consent, is precisely the same kind of value which metallic money possesses. The value of both is determined in the same way, that is to say, by the test of actual employment in the market, and is whatever can be purchased with them.

It is often said of coined money, by way of contrasting it with paper money, that it possesses a value which is "real," "intrinsic," and "inherent," but the value which is intended by the persons who use those words, is a very different thing from the value in exchange of the money. They mean that, unlike paper money, the material of which metallic money is made has a value; and in saying that, they sometimes

have reference to the value in exchange of such material, and sometimes they have reference to the useful purposes to which such material can be applied by the possessor of it. What is thus said as to the value of the material of metallic money is certainly beyond dispute, and it is equally true that the material of paper money has no value except what is so inappreciably small that it may be entirely disregarded. But what is the relation between the value of anything which is fashioned and adapted to a special use, and the value of the material out of which such thing is made? What are the limits of the effect of the value of the material upon the value of the thing? To both these questions the answer is plain, that the recoverable value of the material is the minimum below which the value of the thing cannot fall, but it is not necessarily the maximum above which the value of the thing cannot rise, and it is rarely the maximum to which the value of the thing does rise. The recoverable value of the iron and steel in a machine fixes the lowest limit of the value of the machine, but its highest limit is determined by considerations into which the value of the iron and steel does not enter at all. What is properly deducible from the two facts, (1) that the material of metallic money is valuable, and (2) that the material of

paper money is valueless, is precisely this and no more, that the holder of coin is sure of the value of the metal, even if the coin is demonetized, while the holder of paper money, if its monetary value is lost, has no value left.

In the case of metallic money, its value will not exceed that of the material of which it is manufactured, if the Government coins without charge, and coins for everybody who brings metal to the mint. But there is, theoretically, no limit to the extent to which the value of coins may be enhanced above the value of the metal in them, if the Government chooses to make a State monopoly of coining money in general, or of coining particular descriptions of money. The extent to which the value of some coins is actually enhanced in that way above the value of the material in them, is very great. It is not far from five for one in the nickel and bronze coinages in this country and in Europe. It is not far from one-fifth in the silver coinage in this country, and is rather more than that in most of the silver-using countries in Europe. There is no more difficulty in subjecting coinages, than there is in subjecting the manufacture and sale of tobacco or salt, to a State monopoly.

Upon the same principles which govern coin, paper money would have no value above that

of the material of which it is made, or, in other words, would have no value at all, if Government would issue it without charge to everybody who would bring paper to receive the monetary stamp. But if its issue is made a State monopoly, and if no other money is permitted to circulate, its aggregate value in any country will be equal to the greatest possible value which the whole money of such country could possess, of whatever material it might be composed, and the value of each unit of it will depend upon the number of units into which the money may be divided.

If, while the issue of the paper is made a State monopoly, it is also the policy of the State to have coined metallic money circulate concurrently with it, it is only necessary to take care that the issue of paper does not exceed the amount which can be kept at a parity of market value with coins of the same denominations.

Many writers have maintained that things possess value in exchange only in proportion to the labor expended on them, or other species of cost involved in producing them. Stated summarily, the rule laid down by them is, that value in exchange is created and determined as to its extent by the cost of production.

Such a rule is contradicted by the common

observation and knowledge of mankind. It is true of innumerable things, having a high degree of value in exchange, that they are a mere gift of nature; and it is also true of innumerable other things upon which labor has been expended, that they have no value in exchange. Timber in the forest, coal in the mine, land fit in its primitive state for agriculture, or land needed for occupation by reason of being located in towns and cities, gold and precious stones found by chance, may all have a great value, although they have cost nothing. Value in exchange is not produced by the labor expended on a book which nobody will buy, on a house for which no tenant can be found, on a wharf to which no vessel comes, on an object of taste which is out of fashion, or by a machine or utensil which has been superseded in use by something which mankind think is better. If labor produced value, the relative values of things would depend upon the amount of labor expended on them, and the policy of every producer would be to put the utmost possible labor upon everything he prepared for the market, in order to get a higher price for it. On the contrary, he begins to produce with a price already current, and upon a calculation that the price will not, at the worst, fall below a certain point when he is ready to market his com-

modity, and he expends as little labor in the production as possible. It is the man who produces the greatest results with the least labor who most benefits himself and most benefits the public; whereas, if labor was the origin of value, it would be the man who was the most prodigal of labor upon everything he produced. If value was equal to the cost of production, no manufacturer would ever make a loss on his wares, and no farmer ever make a loss on his crops.

It is no more true that the wages of labor and other costs of producing an article do indirectly affect its price by affecting its supply, than it is that the price of an article does very sensibly, and in various ways, affect the costs of all kinds of producing it. When anything, as for example iron, or cotton cloth, rises suddenly and largely in market value, so as to produce an extraordinary profit on the previously existing scale of wages and of the other expenses of turning out iron or cotton cloth, the competition of producers for the needed labor, material and supplies, increases the cost of production until the profit is reduced to the ordinary rate. Or, taking the reversed case, of a sudden and large fall in the market value of iron or cotton cloth, the wages and other costs of manufacturing those articles must be lowered

or their production will be abandoned, and those who furnish the needed labor, material and supplies, are compelled to conform their demands to the new situation.

Some respectable writers have gone the length of saying, that it is not labor which creates the value of a product, but that labor derives its own value from the value of its product. Thus, McLeod (*Principles of Economics*) says:

It is not the labor which gives value to the product, but the demand for the product which gives value to the labor.

To the same effect, Whately (*Lectures on Political Economy*) says:

It is not that pearls fetch a high price because men have dived for them; but, on the contrary, men dive for them because they fetch a high price.

No conceivable amount of labor will of itself necessarily produce value in exchange. In order that an article may have such value, it is necessary (1) that there should be such a limitation of its supply that those who want it will be compelled to give something for it, and (2) that there should be a demand, and the degree of value will rise as the demand increases and the supply decreases. Value requires the two factors of demand and of limitation of supply. The first factor, which is demand, cannot be created by cost of production, or in any manner affected by such cost, and therefore there is

no *a priori* certainty that labor will create value. It may and it may not. Whether it will, or not, must depend upon whether it is or is not employed in producing something for which there is a demand.

Without doubt, although labor or the cost of production, can never of itself create value, because it can never create demand, it may nevertheless, and often does, indirectly affect and modify the value of things by affecting their supply. Of course, it has no modifying power at all in the case of things which are a mere gift and beneficence of nature. Its indirect modifying power of that kind will be greater or less over the value of things, as human effort is a greater or less ingredient in producing them. As a general rule, human effort will be more or less withdrawn from producing things whose exchangeable value is for a long time below the cost of production. In that way the supply is reduced until the exchangeable value rises again so that active production may be profitably resumed. But in this case, the force which raises the value of an article is the diminution in the supply of it. The cost of production affects value, not directly but indirectly by affecting supply.

This indirect effect of the cost of production upon value is not universal, and it is felt al-

ways in an imperfect manner, and sometimes very slowly. When men spend labor in searching for diamonds, or for gold, or in similar pursuits in which success is, to a large degree, a matter of chance, the universal hope of a stroke of good fortune will induce them to continue efforts which, as a whole and in the long run, are not remunerated by the aggregate results. Ordinarily, men cannot easily change from one pursuit to another, and they will ordinarily continue for some time in a production which is at the moment unprofitable, in the hope of a favorable change in the markets. Often some considerable period must elapse before a diminished production sensibly affects the stock on hand. It is especially true of things which are comparatively imperishable, that the current production affects the stock very slowly. The metals, both precious and base, but peculiarly the precious metals, present familiar cases of that kind, but they are not the only ones.

The observations thus far made have reference to a fall of exchangeable value below the cost of production, but it is equally true that, when value rises above cost, such an increased production as will restore the former relation of supply to demand may often occur tardily, and possibly not until after an indefinite lapse of time. If the world's demand for

wheat should be suddenly doubled, the resulting rise of value would be soon lost by a doubled production, from the vastness of the areas of land and climate adapted to the cultivation of that grain, and from the rapidity with which capital and labor could be concentrated upon it. If the world's demand for apples should be suddenly doubled, a corresponding increase of production would be slow. The crop of apples is annual, but it takes years to bring the tree to its fruit-bearing maturity. In the case of diamonds, and of gold, neither can be produced at will by the application of capital and industry. It is only in a few places that diamonds can be found at all, or that gold can be found in such quantity and under such conditions as to induce men to mine for it. The continuous decline in the stock of the precious metals and the continuous rise of their value, during the many centuries between the downfall of the Roman Empire and the discovery of America, caused no increase in their production. There would have been no increase of their production to this day, but, on the contrary, a still continuing decrease, if the voyages of Columbus had not opened the way to new mines. The value of gold and silver would have risen higher and higher in the Old World, as compared with the cost of producing them,

but there would have remained the insurmountable difficulty of a deficiency in the number of places in which it would have been possible to find them, and to apply labor to their production.

Taking all circumstances into the account, the indirect connection between the current cost of mining gold and silver and their value, is never more than a slight one, and sometimes there is no such connection. A value exceeding many times the cost will not be followed by an increased current production, unless mines fit to be worked can be found. The value of gold and silver depends upon the proportion between the demand and the total stock on hand, which is the supply. This stock is the accumulation of ages, and is so vastly in excess of any annual production which has hitherto occurred, or is likely ever to occur, that it can be affected only very slowly by the vicissitudes of mining. A rise in the value of the precious metals, so long as they maintain their position as the money of the world, while it is, of all the calamities that can befall mankind, the most wide-reaching, potent, and insidious in its mischiefs, is also, at the same time, an evil against which they have no certain means of guarding themselves. They may be compelled to endure it, helplessly and hopelessly, for centuries, and re-

lief will come, if it comes at all, only by some happy concurrence of fortuitous events.

Those who lay down the doctrine that value can only originate in labor, and is regulated by the cost of production, always accompany it with an exception which takes the case of paper money out of the operation of the rule. They admit that cost does not affect the value of things, the production of which is protected against competition in whatever way, whether by patent laws, or by the use of a process which can be kept secret, or by a monopoly of any kind, either conferred by law or resulting from the actual facts of the situation. It is obvious that a cheapened cost or an entire absence of cost cannot affect value by affecting supply, where there is only one producer, and that the value of anything under that condition will depend upon the intensity of the demand and the quantity of the thing which such producer may choose to furnish to the market. It is upon that principle that governments, which choose to decree a paper money which costs nothing, may give it value by monopolizing its issue and restricting its quantity.

The report (1877) of the United States Monetary Commission lays down the true doctrine in these words :

The value of money, of whatever kind, is measured by

the cost of obtaining it after it has been produced, and not by the cost of its production, and this value is indicated by the general range of prices.

Musgrave (*Studies in Political Economy*, 1875), says :

The value of the gold obtained by the digger is not measured by the labor which it costs him to get it, but by the amount of other property which he can get for it. In common parlance, the thing is worth what it will fetch.

What the cost of the production of metallic money may be, immediately concerns only the infinitesimally small fraction of mankind engaged in the business of gold and silver mining. In countries in which these metals are the standard of money, how much labor and how many commodities must be parted with in order to obtain given quantities of gold and silver, concerns everybody, and in a most vital particular. The greatest living authority in finance* has aptly and vigorously said :

It is a comparatively small portion of the people of this or any other country that obtain the gold and silver with which debts must be paid by delving in the mines. The vast majority work for gold and silver, not in the mineral regions, but in the rice, tobacco, wheat and corn fields ; at the anvil, forge and lathe ; in the seams of coal and iron, and in ships on the seas. The debt-paying power of the country is measured by the amounts of gold and silver for which the products of these and all other industries can be exchanged. *This gauge measures the value of money.*

As to the cost of producing paper money, it

* Speech of Hon. John P. Jones, in U. S. Senate, Feb. 14, 1878.

concerns nobody but the issuer of it. If the Government is the issuer, it is for the general advantage of the public that its production should cost nothing. What concerns the people among whom it circulates, is what it costs in real estate, commodities and services to procure it, or, in other words, what its value is.

Adhering to the use of the term money, as meaning whatever is generally accepted by everybody for anything they have to sell, and also generally accepted in payment of debts, whether by legal compulsion or by common consent, we see that McLeod was right in saying (*Principles of Economics*, chapter IV):

Why do people take a piece of money in exchange for services or products? They can neither eat it nor drink it, nor clothe themselves with it. They can make no direct use of it. The only use they can make of it is to exchange it away again for something else they want. And the only reason why they take it is, that they believe, or have confidence, that they can do so whenever they please.

Aristotle, who is among the oldest philosophers whose writings have been preserved, said:

With regard to a future exchange, if we want nothing at present, money is as it were our security that an exchange may be made when we do want something.

This idea, familiar to everybody who uses money, that it is not wanted for any value such as is described by the words "intrinsic" or "inherent," but only for its command in the mar-

ket over commodities and services, has been expressed by innumerable writers.

Baudeau, a French economist, says:

Coined money in circulation is nothing but an effective title on the general mass of useful and agreeable things. It is a kind of bill of exchange or order, payable at the will of the bearer.

In Adam Smith's *Wealth of Nations* it is said:

A guinea may be considered as a bill for a certain quantity of necessaries and conveniences upon all the tradesmen in the neighborhood. The revenue of the person to whom it is paid does not so properly consist in the piece of gold, as in what he can get for it, or in what he can exchange it for. If it could be exchanged for nothing, it would, like a bill upon a bankrupt, be of no more value than the most useless piece of paper.

In John Stuart Mill's *Principles of Political Economy*, it is said:

Nothing more is needful to make a person accept anything as money, and even at an arbitrary value, than the persuasion that it will be taken from him on the same terms by others.

In Henry Thornton's *Inquiry into the Nature and Effects of the Paper Credit of Great Britain* it is said:

Money of every kind is an order for goods. It is so considered by the laborer when he receives it, and is almost instantly turned into money's worth.

In this sound view of money, as being of the nature of an order for property, the holder is only concerned to have the order an effective one, and it is of no consequence to him, if

the order is effective, whether it is stamped upon paper, or upon gold or silver. The most that can be said is, that if the order proves to be ineffective, he will be able, if it is stamped upon gold or silver, to recoup his loss to the extent of the value of the raw material of his order.

It cannot be said to be necessary to the belief of a fact that the evidence of its existence should be accompanied by a satisfactory solution of the causes of it. Nor is it apparent that the duty of furnishing such a satisfactory solution devolves upon those who point out the existence of a fact, any more than upon those to whom it is pointed out. That the sun appears in the East every morning has been always known, and was never denied by those who were unable to frame any theory, erroneous or otherwise, as to the cause of its daily appearance. It is only within comparatively recent times that the true cause of it has been apprehended by anybody, and it is to-day not apprehended by large numbers of the human race. But at all times, and whatever the condition of the scientific knowledge of mankind, and whether the current belief has been that the sun revolved daily around the earth, or that the earth revolved daily on its axis, the fact of the daily rising of the sun has been universally observed.

That gold and silver coins have value or purchasing power in nearly all countries, and that irredeemable paper, sometimes with and sometimes without the function of being a legal tender, and oftentimes when there is no effective and appreciable expectation that it will ever be redeemed in coin or in anything else, has value or purchasing power in many countries, are both of them facts, and are universally recognized as facts wherever they exist. In every country in which either of these descriptions of money is current, every man who voluntarily accepts it in exchange for commodities or services, understands perfectly well that he accepts it because it will be accepted by everybody else for anything he may have occasion to purchase. The reasons for its currency may be differently understood and differently stated by different persons; but wherever it is actually current as money, with a purchasing power over all kinds of property and services, there can be no disagreement about the fact.

Whatever else money may be, and whatever other functions it may possess, it practically serves the holder as an order upon everybody within the territorial area of its circulation for anything which is on sale. If it does not perform that service, it is not money.

The nature of money, as it is used in the

transactions of trade, is sometimes illustrated by comparing it to the counters used in certain games. But whether its essential function is endeavoured to be made more easily comprehended, by speaking of it as an order for some portion of anything which is on sale, or as a counter entitled to command some portion of what is played for in a game, it must never be forgotten that it possesses a real and substantial value by reason of having the capacity of such an order or counter, and without any reference whatever to the cost of its material or manufacture. Musgrave, in his *Studies in Political Economy*, adopted the illustration of a counter, but he added:

So long as gold and silver are regarded as counters in the transactions of mankind, they will possess intrinsic worth, . . . until such time as the world—if ever—can stop its game of commerce and set aside the counters.

What Musgrave styles the "*intrinsic worth*" of gold and silver used as "*counters in the transactions of mankind*," is far above any value they would possess if not so used, and it is manifestly true of a counter of any description, that its value is in no degree affected by its material or cost.

CHAPTER V.

THE NOTES OF BANKS ARE OFTEN CURRENT AFTER THEY SUSPEND SPECIE PAYMENTS. COIN REDEMPTION IS NOT ESSENTIAL TO THE VALUE OF EITHER BANK OR GOVERNMENT PAPER.

To many persons the idea is an incomprehensible one, that money which has been produced without appreciable cost, and the material of which has no appreciable worth in the market, can derive value merely from the general consent of the people of a country to accept it for what they have to sell and for debts due to them, or from a decree of the Government making it a legal tender, or from both things combined. Such a conception appears to them to involve the absurdity that popular assent or legislative *fiat* can produce something out of nothing. They know, of course, that money costing substantially nothing, either in its material or manufacture, has often and in many countries been freely and commonly accepted in exchange for property, and has also been commonly accepted in satisfaction of debts, even when there has been no law compelling such acceptance. Cases of this kind have been so numerous that it is

quite impossible to deny that they have occurred as a matter of fact. The persons who find it difficult to believe that there can be any value except what they describe as intrinsic, and as existing in the useful qualities of some material substance, explain those cases by saying that the money has been accepted, not as in itself of any value, but as the promise, supposed to be reliable, to pay real money, or as being in some other way, not very well defined, the sign or representative of real money. In some of the cases the explanations thus given seem at first sight to be sufficient, but in other cases they are manifestly inadequate.

The notes of State banks, as known in this country before the Civil War, so long as the promise of coin on demand which they contained was performed, were supposed to derive their value and currency entirely from that promise. They were spoken of as being in all substantial respects coin, not coin in a corporeal form, but coin signified and represented by paper. They were not regarded as usurping the place and functions of coin, but rather as acknowledging its authority and as exercising it by delegation and substitution. Currencies of that kind have existed at many times and in many places, and it is ordinarily said that the countries in which they exist are on a metallic basis.

But it happened frequently to the old State banks that they suspended coin payments. When merely a single bank stopped such payments it was called a bankruptcy rather than a suspension, and was generally followed by a liquidation and winding up. But when they suspended *en masse*, either over the whole country or over large sections of it, as they often did, the uniform result was that their notes were accepted as freely as before in exchange for commodities. They were still the standard currency in which prices were stated, and if the valuation put on them was sometimes reduced relatively to coin, it was rarely so much reduced that they were not voluntarily accepted in discharge of previously contracted debts. It thus turned out in repeated cases, that whereas these notes, while redeemed in coin, were commonly said to be current solely in consequence of such redemption, they continued to be equally current when there was no longer a coin convertibility even in name.

The experience of other nations has been like our own. Without doubt, the Englishmen of the last century³ believed and said before 1797 that the notes of the Bank of England were current, because they commanded coin upon presentation at its counter. What they found by a trial of it was, that the currency of those notes was

unimpaired during the period of twenty-four years commencing in 1797, when they would not command coin upon presentation, and when nobody could certainly foresee when, if ever, they would so command coin. Englishmen of the present day, better instructed by past experience, know perfectly well that if the Bank of England should again suspend coin payments to-morrow, its notes would still remain the accepted currency of that country. The Bank of France has suspended coin payments twice during the present generation, and once recently, and on neither occasion was the currency of its notes in the least degree affected by the fact of suspension.

In the case of the State banks, which formerly furnished the currency of this country, there never was any genuine confidence in the redeemability of their notes. Albert Gallatin expressed, fifty years ago, the common opinion and his own, by saying that they were promises to deliver coin provided nobody asked for it. They were constructed and conducted upon such principles, and issued notes in such excessive disproportion to their coin reserves, that it was impossible that they should avoid suspensions when panics arose, or the course of the foreign exchange became largely and obstinately adverse. In most cases their suspensions were, as

a choice of evils, the best thing to be done for the public interest, and were sustained by the approval of contemporaneous public opinion.

Of course, it is not intended to be denied that a bank note, promising coin on demand, derives a value from such a promise, if it is relied upon. In that respect it is upon the same footing as any other paper which is the legal evidence of a contract to pay money on demand, or at a designated future day. But a bank note, forming part of the actually accepted currency of a country, derives value from other facts besides the promise to pay coin, and therein it differs essentially from a merchant's note or draft for any given sum payable in any given number of months. The market value of a merchant's obligation depends wholly upon the degree of solvency which he is reputed to possess, and it is only the expectation of its complete, or at least partial, performance, which will induce anybody to purchase it. On the other hand, bank notes actually current and accepted as money are received in exchange for commodities and services, not with an intent on the part of the receiver to collect the coin promised on their face, but to realize their value by an exchange in the market for something else which he may want. It is not an expected redemption at the counter of the bank,

but an expected availability as a means of purchasing commodities and services from others, which governs the voluntary receiver of bank notes when they have become in fact a part of the established currency of any place. In short, they are received, not because they are promises to pay money, *but because they are money*, that is to say, because they are something which is readily accepted by substantially everybody for anything they have to sell and in payment of debts.* They have a value independently of their redemption in coin, although such a redemption, so long as it is actual and reliable, affects the degree of their value and fixes it at a parity with that of coin. The real basis on which they are received may be misunderstood, so long as they are convertible into coin, but becomes plain enough when they cease to be so convertible, but are still received as readily as before, and oftentimes at a valuation not sensibly reduced. Bank notes payable and paid in coin on demand, and especially where they form

* John C. Calhoun (speech in Congress, February 26, 1816, on bill to create a National bank) said .

"Gold and silver are not the only money, but *whatever is the medium of purchase and sale*; in which bank paper alone is now employed, and has, therefore, *become the money of the country*. The right of *making money*, an attribute of sovereignty, a sacred and important right, is exercised by 260 banks scattered over every part of the United States."

the great mass of the circulating medium, are not at all a credit currency, as so many writers describe them to be. Nothing is more delicate and fragile than credit. A breath may tarnish it and a rumor may destroy it. It has been said of that sort of confidence, of which pecuniary credit consists, that it is nothing but suspicion asleep. Money, on the other hand, is of a marvelously tough fabric. It is a primary necessity of civilized life, and when the sole or principal money of a country consists of bank notes, it will survive much ruder shocks than that of a temporary, or even a long-continued, suspension of coin payments. In fact, it will often remain current for considerable periods of time, even after there have ceased to be visible any good reasons for its currency, except that there is no other money within reach and that money of some kind is indispensable.

In the many cases which have occurred of Government paper, avowedly irredeemable in gold or silver, we are not confused as to the causes and principles of its circulation, as we are liable to be in respect to the circulation of convertible bank notes.

The Russian paper rouble is a century old, having been issued in the reign of Empress Catherine of unsavory memory. In all that time it was never pretended to be redeemed, except

from 1839 to the outbreak of the Crimean War in 1854-5, and it is a matter of mere conjecture when another period of redemption will occur, if it ever does. The facts that it is the current money of Russia, that prices in that empire are stated in it, and that everything there is purchasable with it, cannot be explained by its being convertible into, or being the representative of, any other kind of money. It is receivable for taxes and is a legal tender, and furthermore it is not permitted to Russians to make contracts payable in any other money. It is a pure *fiat* currency, produced without appreciable cost, but that it has a value in Russian markets is just as incontestable as a matter of fact, as that wheat and timber have a value in them, and, furthermore, by reason of its having a value in all Russian markets, it has a value in all countries which have occasion to buy in those markets.

In this country the Government paper, known as the greenback, had at all times, prior to the resumption of coin payments in 1879, and in all places, except on the Pacific Coast, such an undoubted and universal value in the market, that it would command in exchange every species of property and service, and that the prices of all commodities were made and stated in it. There was no appreciable cost in either the material or

the manufacture of this paper, and its value or purchasing power rested upon nothing except the laws of Congress making it receivable for certain classes of National taxes and a tender for private debts, and the general consent of the people, under the influence of those laws and of other circumstances, to accept it in exchange for what they had to sell. Neither in the law creating this paper, nor on the face of the paper itself, was there any effective promise to redeem in any other kind of money, nor was it in any intelligible or conceivable sense the sign or representative of any other kind of money. Certain writers and speakers have used the license and latitude of political party discussions to the extent of saying that this paper was "a dishonored promise" of the Government, but it contained no engagement which was not always scrupulously observed. It was at no time refused to be received for the classes of taxes for which it was declared to be receivable. There was a promise on it to pay dollars, but neither on demand nor at any fixed time. Everybody who took it, either from the public treasury, or from individuals, knew it was payable only when the Government, in view of all the public interests involved in a question of the currency, than which none can be more delicate and complicated, should judge it fitting

and expedient to pay it. By no possibility could such a promise to pay dollars ever become "overdue" or "dishonored." As the United States Supreme Court said in the case of *Bronson v. Rhodes* (7 Wallace), the greenback dollar "was not a promise to pay on demand, or at any fixed time; nor was it in fact convertible into a coined dollar." It is altogether plain that paper of that kind, neither presently convertible into coin as a matter of fact, nor containing any promise of such conversion except at the pleasure of the maker of it, could not have obtained currency as the sign or representative of coin.

In the case of *Hepburn v. Griswold* (8 Wallace) decided in 1869, Chief Justice Chase said of the greenbacks, that they had no "intrinsic value, but a purchasing value, determined by (1) the quantity in circulation; (2) by the general consent to its currency in payments; (3) by opinion as to the probability of redemption in coin."

It would have been more correct to say that the purchasing value of the greenback resulted from the general consent to its currency, however brought about, and that the extent, or degree of its purchasing value was determined by the quantity in circulation. Opinion as to the probability of its redemption in coin, neither

created its value, nor fixed the magnitude of its value in 1869.

No man in 1869, or anterior to that time, exchanged his commodities for greenbacks, with the intention of holding them until they should be redeemed in coin, or concerned himself with idle and fruitless speculations as to the probable time when they would be redeemed in coin. He accepted them solely on the basis of their then current value, or purchasing power in the market, or, in other words, he accepted them solely as money, and solely with a view to their present use as money. If the greenback had been stamped, as the coined gold and silver dollars are, with the words *one dollar*, in lieu of being stamped with unmeaning words promising to pay one dollar, without any specified date of payment, its value in 1869 would have been precisely the same. Its value arose from the functions given to it by law, of receivability in important branches of the National revenue and of being a legal tender for private debts, and from the existing fact, however arising, that it was commonly accepted in exchange for property and services. The extent of its value was determined by the proportion between its quantity on one side and the population by whom it was used and the exchanges in which it was employed on the other side.

It may be true, although it is by no means certain, that later on and in close approximation to a date subsequently appointed by law for its redemption in coin, its value was more or less affected by the state of opinion as to the probability that it would then be so redeemed.*

But that it was so affected in 1869, or anterior to that time, or for several years posterior to that time, is the idlest of fancies. Those who surrender to that delusion, do so, not

*The Resumption Act became a law January 14, 1875. During that month the highest quotation of gold in the New York market was $113\frac{3}{8}$, and the lowest quotation was $111\frac{1}{4}$. During the year 1874, the highest quotations of each month give an average of $114\frac{3}{8}$, and the lowest quotations give an average of 109. During the year 1875 the highest quotations of each month give an average of $117\frac{5}{8}$, and the lowest quotations give an average of $111\frac{3}{4}$. The premium was, therefore, rather higher during the year after the passage of the Resumption Act than during the year prior thereto. It was higher during the year 1875 than it was in either 1871, 1872, or 1873. It was as high in 1876 as it was in 1871 or 1872. It showed no distinct fall until 1877, when the highest quotations for each month give an average of $107\frac{3}{8}$, and the lowest quotations for each month give an average of $102\frac{1}{2}$. It fell still more during 1878. The opinion of the soundest minds has always been, and still is, that the gold premium did not fall in 1877 and 1878 in consequence of an expectation of resumption January 1, 1879, but that resumption at that date was *a consequence of the preceding fall in the gold premium*, brought about by commercial causes, such as great grain crops in the United States contemporaneously with deficient crops in Europe, large favorable balances in our foreign trade, &c.

because there is any fact to justify it, but because they hold to a preconceived theory which they have accepted from reading certain books, that no paper can have value unless it is in some way the representative of coin, either by present convertibility into it, or by some degree of expectation of such a convertibility at a future time. But it is admitted that the Russian paper rouble has value without either thing, and that Brazilian paper does, without either thing, possess a value even greater than that of the rouble. And although it may not be admitted, because it would be inconsistent with a theory to admit it, yet the fact was contemporaneously well known to everybody handling money in the United States, that the currency of the greenback for years before and after 1869, was in no wise affected by a (so-called) promise, which was no promise, of redemption in coin, but depended wholly upon the functions which it then presently derived from the law, and upon the exchangeability as a recognized money in the market into every species of property which it then presently enjoyed.

The contract between the United States and the holders of greenbacks, remains precisely the same to-day as it was when they were first issued. They are still payable, not on demand,

but only when the Government may see fit to pay them, in view of all the considerations of National policy involved in that question. The Resumption Act of 1875, directing the Treasury officers to commence paying on the first of January, 1879, was a public act, and was passed for public objects, and it has remained ever since the right of Congress to repeal it, whenever that may seem expedient. No new pledges of any kind were given in that act to the individual holders of the greenbacks, and the question of continuing or suspending their payment is merely a public question in respect to the monetary circulation.

The paper money of the Confederate States did not have so long a career as the greenbacks have had, nor was the termination of it so fortunate. But while that career lasted, it afforded a perfect illustration of the fact that an accepted government paper, without any effective promise of payment in coin, has value in the market. In the case of the Confederate money, there was not only no promise of payment, either on demand, or at a fixed date, but there was no absolute promise to pay at all. There was a promise to pay in so many months after a treaty of peace should be negotiated with the Northern States. That was a condition which manifestly might never happen, and in the turn

of events did not happen. Nevertheless, Confederate paper was for a considerable time so completely the established currency within the regions actually dominated by the Confederate Government, that the prices of commodities and services were made and stated in it, and that it was in all respects the recognized money of Confederate markets.

If value was a corporeal substance, it would be true of it that it could not be created out of nothing, nor could it be destroyed, if already existing, by any aggregation of men represented by a government. Matter can be created, and is destructible, only by the Divine Being. But value is not a corporeal substance or thing. It has neither extension, form, color, nor weight. It is cognizable by none of the bodily senses of man. It can be neither heard, seen, smelt, tasted, nor touched. Value is simply a relation of exchange between two objects in the market, in the operation of buying and selling, and the terms of such a relation depend upon the demand and supply of the two objects. If human power can affect the demand or supply of either object, it can affect the relation of value between the one and the other. It is like the relation of distance between two objects, which can be created, destroyed, increased, or diminished by man, provided either of the objects is movable by human power.

It will not be disputed that governments can greatly affect values, whenever they can exert a power over the demand for, or supply of, any objects. Of that, examples cannot fail to occur to the reader, from the old one where the English Government increased the value of woollen cloth by decreeing that every dead Englishman should have his shroud made of that fabric, to the more modern one, when the American Government increased the value of horses by buying up an enormous number of them for use in the Civil War. It would be extraordinary indeed, if governments did not have as much power over values, as is always possessed by the leading milliner for the time being in Paris, who can change values by changing the fashions and thereby throwing some things out of demand and bringing other things into demand.

A change of value in the direction of increasing it, is, as respects the added value, the creation of a new value. And it is, therefore, true that there can be no more inherent impossibility that governments can create a value where none existed before, than there is that they can add a new value to an old one. In the case of money, for which the demand under the conditions of civilized life is imperative, governments can give the prerogatives and functions of money to anything at their discretion. They

may select for that purpose something of which the cost of the material and of the manufacture is inappreciably small, and by monopolizing the production of such money they may give to each unit of it such value as they see fit. The value of money arises, not from its material, but from the functions with which it is invested by law, or common consent, or both. This species of value, arising from its functions, while it is the only value which paper money possesses, is also the only value which is taken into account in respect to metallic money. The degree of this value, in respect to both paper and metallic money, depends upon the limitation of its quantity relatively to the demand for it.

There is only a difference in degree between the *fiat* power of governments over the value of paper money, and the same power over the value of gold and silver money. It is true that when mints are open to everybody the value of gold and silver coins is the same as that of the bullion contained in them, so that a first impression would be that governments in no way affect that value. Nevertheless, they do *affect the value of the bullion itself*, by decreeing that it shall be the sole raw material of coin, and by so legislating as to force the use of coin money. Gold and silver coins are thus in-

debted to the *fiat* of governments for an unknown but large part of their value, although not for the whole of it as government paper money may be.*

In short, there is no scientific objection whatever to paper money. The objections to it are political. The question is only partly solved by showing (1) that there is no *a priori* probability that the supply from the mines will increase and diminish in any proper proportion to the varying monetary wants of mankind; (2) that a long experience has proved that the fact is quite the reverse; and (3) that it is theoretically possible for governments to make a better money out of paper than nature has made in the precious metals. If governments can make a bet-

*The United States Monetary Commissioners say in their report (1877):

"Nor can there be any doubt that originally the value of gold and silver followed closely the cost of their production, and that the demand for them as commodities was the controlling, but variable, force in regulating their values. But when, in the progress of society, large stocks of the metals had been accumulated and their use as money had become established, that use and the demand which resulted from it became the controlling force in regulating their values. Demand and supply are the sole factors out of which exchangeable value arises. The demand for gold and silver as commodities is limited and fluctuating; but when the law invests them with the higher function of money and makes them the common denominator of all values, that limited and fluctuating demand is changed to an unlimited and constant one, *which fixes their value for other and inferior purposes.*"

ter money out of paper, it is equally undeniable that they can make a worse one. Ricardo, sixty years ago, understood and stated with perfect clearness the scientific basis of a sound paper money, regulated in its value by a limitation of quantity, but as a statesman he was at that very time a leader among those who fixed its value in England by redeemability in one of the precious metals.

Upon the political question, whether governments can be trusted to make a better regulation of the quantity of money by issuing paper, than nature makes of the quantity of metallic money by the yield of the mines, I shall at present make only the two following observations :

1. Like every other question relating to political institutions, it cannot be intelligently discussed or wisely decided, except in reference to all the special circumstances of each country by itself, such as the form of its government, the degree of the intelligence of its people, its financial situation, and the prevailing ideas and influences in respect to monetary subjects. It is not to be assumed that because the issue of government paper money may not have been suited to the conditions of former times, it is necessarily unsuited to the present times, or that because it might be to-day a dangerous experi-

ment in nearly all the countries in the world, it might not be safely tried in some of them.

2. The question of issuing Government paper money in the first instance, is an entirely different one from the question of continuing such a paper money after it is already issued; after prices have been adjusted to it; and when its withdrawal must affect the equities of the innumerable contracts which are always in existence in commercial countries and under the conditions of modern civilization.

CHAPTER VI.

MONEY IS USED BY COUNTING AND NUMERATION.

THE MARKET DETERMINES HOW MANY UNITS OF IT ARE, AT THE TIME AND PLACE, EQUIVALENT TO EACH COMMODITY ON SALE.

WE have seen that money performs the office of an order or ticket for property and services of all kinds. But it performs this office only because it does itself possess value, and when it performs this office, what takes place is an exchange in the market of the value of the money for some other form of value, the ratio of the exchange being determined by the competition of buyers and sellers and by the relative demand

and supply of the two things which are exchanged for each other. Money is an order or ticket for property and services, only in the same sense in which it might be said, in the case of an exchange of a hat for a pair of boots, that the boots served as an order for the hat, and that the hat served as an order for the boots. But whether a hat will serve as an order for a pair of boots on a given day and in a given place, depends upon the uncertain circumstance of finding a holder of a pair of boots ready to part with them for a hat, whereas money, by reason of the permanent and constant demand for it, will always exchange for anything which is on sale.

While, therefore, it is convenient and sufficiently correct to speak of money as an order or ticket for property and services, we must be careful to observe that when it serves the purpose of such an order or ticket, it does so only upon the same basis of exchanging value for value, which is the basis of barter transactions. It differs fundamentally from a written order for goods, or from a ticket of admission to a theatrical exhibition, both of which are *functus officio* when they have been once used. Money is never *functus officio*, but serves every present holder of it as an order for goods, just as it served all preceding holders of it.

Money is in other respects an order of a very peculiar kind. It has no drawer who is bound to see that it is honored, nor any drawee who is bound to honor it. It has no indorser, and the holder has taken it at his own risk. But its chief peculiarity consists in the fact that it is not an order for any particular thing, nor for a specified proportion of either any particular thing or of the whole mass of things which are on offer in the market. On that statement of the case the question naturally arises: In what way is an order or ticket thus completely indefinite as to what and how much it is an order or ticket for, available in practical use? Or, in other words, by what process is it that the holder of an order or ticket of that description, is able to come to such an understanding with those who have commodities or services to dispose of, as will render possible a transaction of purchase and sale between them?

The exchangeable value of the unit of money is not stamped upon it, nor is it in any way whatever prescribed by law, nor, indeed, is it possible that any legal prescription of its value could be effective.

There is no common consent by which its relation in exchange to any one thing, or to the mass of things, is permanently determined. On the contrary, its relation in exchange to every-

thing is constantly changing, and on any given day and at any given place it is only in the market that this relation can be tested and ascertained, and then only for that day and for that place.

There is nothing in the essential nature of the unit of money and of the things for which it is exchanged, from which we can foresee in advance of a trial of it, what the relation of exchange will be between the unit of money and (for example) a horse, a bushel of wheat, or the services of an ordinary laborer for a specified time.

Money cannot measure the value of things by being weighed against them in balances, nor by being placed alongside them as a yard stick is placed alongside cloth, nor by containing them as a standard bushel contains grain.

The monetary currency of every country has a unit, as the dollar in this country. A single piece of money, whether of metal or of paper, is sometimes one of these units, and is sometimes several of them, as in this country the gold eagle is ten units and the double eagle is twenty units. These units are in universal demand, inasmuch as it is an essential part of the definition of money, that everybody should be ready to exchange for them everything which he desires to dispose of at all. From the nature of the case the units are in equal de-

mand and of an equal value in exchange, comparing one with another. In what way the demand for the units of money is determined, whether by population, by wealth, or by the frequency and magnitude of the exchanges going on, or by all three things contributing to the result in some discoverable or undiscoverable proportion, is a matter of speculation, in respect to which there may be many opinions. That it is determined in some way is beyond dispute, and however determined, it is at every given time a fixed and definite force acting upon their value. The only other force which can possibly act upon their value is the supply of them, which is the number of them, and as they are all of the same value it is only by counting that money is or can be used, and it is only by figures or words of numeration that money transactions are or can be expressed. It is thus that money measures the values of things by being counted against them, and that the prices of things are expressed by the number of units of money for which they can be exchanged. Every seller tries to get the utmost possible number of units for what he brings to market, and every purchaser strives to obtain what he wants with the least possible number of units. It is, therefore, plain that in every country at any given time, the value of the unit of money tends to rise or fall, other

things being equal, as the number of the units diminishes or increases. The prices of things, which means their values as expressed in units of money, must be determined by the proportion between the number of the monetary units on one side, and the property and services offered for money on the other. It is in that way, and it can be in no other way, that the precise amount of commodities or services for which the unit of money is an effective order or ticket, is ascertained, so that it is practicable for those who buy and sell to come to an agreement. It is of no consequence of what material it is made, or at what cost of production, or, if made of metal of what weight and fineness, except indirectly and in so far as the number of the units may be affected by the scarcity or abundance of the material, or by the greater or less difficulties of any kind in the way of multiplying the units. No matter what may control the number of the units, it is that number, however controlled, which alone determines the value of the units at any given time, inasmuch as they have no value which is prescribed by law, tradition, or current common consent, or which is fixed by any other circumstance than that of their number. The actual method of using them, which is that of counting, is the only conceivable method, inasmuch as they are all of them

always of the same value, comparing one with another, however much their value may fluctuate, comparing one time with another or one locality with another. The number of units required to be counted and delivered in order to purchase a particular article on a given day in any market, is determined by the competition of sellers on one side and the competition of buyers on the other side, in that market and at that time, and is determined in precisely the same way in which "chaffering in the market" fixes the ratio of exchanges of one commodity for another when business is conducted by barter.

If the money of payments, and in which prices were made and stated in the United States, was of a kind admitting of an indefinite enlargement of its volume, its aggregate value would be in no wise increased by increasing its volume, or, in other words, by increasing the number of its units. If the money consisted of one thousand million irredeemable *fiat* paper dollars, their total power in exchange would be made no greater by multiplying them ten times. Nothing would happen in that case except that each dollar would be worth only one-tenth as much as it was before. The aggregate value of the money of the United States bears a fixed, although unknown, relation to its wealth, population and exchanges, and can only be increased or dimin-

ished by an increase or diminution of the wealth, population and exchanges. This relation is not necessarily the same in all countries, inasmuch as the habits of different countries in respect to the use of money may and do vary very greatly. It is probable, for example, that the proportion of money to the volume of transactions is twice as great in France as it is in England. But in the United States, and in every other country considered by itself, there is always at any given time a certain aggregate value of the money, which is conclusively fixed by the property of all kinds which it measures and the transactions in which it is employed, and which cannot be affected by any change in the number of the units of the money.

This doctrine, that the aggregate value of the money of a country at any given time is a fixed amount and is wholly independent of the volume or number of units of the money, was, for the first time, distinctly announced and clearly elucidated in the report (1877) of the United States Monetary Commission. It is a doctrine of great importance, and was laid down by that Commission in the following language:

Under firmly-established systems the value of each unit of either metallic or *fiat* money, depends absolutely upon the number of such units and the relation they bear to the services they are required to preform. The purchasing power of the world's entire stock of metallic money would neither be

increased nor diminished by an increase or diminution of its magnitude, if other things should at the same time remain unchanged. The value of that stock can only be changed by an increase or diminution of the things which it is the function of money to measure. If the volume of either metallic or accepted *fiat* money should be doubled at however great or little cost, other things remaining the same, the aggregate value of neither would be changed, but the value of each unit would be reduced one-half.

In another part of their report, the same Commission say :

The aggregate of the money value which can exist in any country, is limited and fixed automatically by its environments. It bears a sure relation, however indeterminate, to the population, wealth and exchanges of such country, as modified by the character and habits of the people, their modes of transacting business, the rapidity with which their exchanges are effected, and many other considerations. . . . The aggregate of the money value can only be increased by an increase or diminution of the productive forces and wealth which it measures and which govern it. The increase or decrease of the number of the units of money can have no effect upon the aggregate of the money value, but the number of such units simply determines the fractional part of the whole value belonging to each unit.

To give a complete account of all the theories which have been propounded from time to time as to the principles upon which money performs its known functions, would be to use a drag net to bring to the surface a mass of exploded follies, which had much better lie, as they now do, out of sight and forgotten. Nevertheless, it may serve a useful purpose in illustrating sound views, to comment upon some

errors which still find advocates and still perplex and confuse monetary discussions.

Bastiat, a modern French writer, who has acquired considerable fame as the author of some plausible and brilliant free-trade sophisms, says:

Whoever has rendered a service, and has not received an equal satisfaction, is the bearer of a warrant either possessed of value, like money, or of credit, like bank notes, which gives him the right to draw from society when he likes, where he likes, and under what form he will, *an equivalent service*.

At another time Bastiat has given the following somewhat different version of the nature of such an order on society as the French coin called a crown:

The crown piece witnesses that you have rendered a service to society, and moreover it states the value of it. If you can read with the eye of the mind the inscription it bears, you can distinctly see the words: "*Pay to the bearer a service equivalent to that which he has rendered to society, value received and stated, and proved and measured by that which is on me.*"

Bastiat is entirely mistaken as to the origin of the right or power of the holder of money to demand property and services from society. It is the actual possession of money which gives the right, in the sense of power, to obtain other things by purchase. How possession of the money was obtained is altogether immaterial. A piece of money picked up by chance, or stolen,

or obtained by false pretences by gambling, or by pandering to infamous vices, is as effective an order upon society as if it was acquired by the fairest exchange, or the most useful and meritorious industry.

Bastiat is equally mistaken in saying that there is anything on a piece of money, visible either to the bodily eye or to "the eye of the mind," which "*states the value of it*," or by which there is "stated and proved and measured" how much service the holder of the money has rendered to society at some anterior time, and how much equivalent service he is entitled to claim from society in return. All that governments do about money is to decree what shall be the unit of it, as a dollar in this country, a franc in France, and a pound in Great Britain; and to decree, what stamped coin or stamped paper or other prescribed thing, shall be this unit. What property or services shall be commanded in the market by this unit, or, in other words, what its value shall be, is something which governments cannot possibly control, and which in modern and enlightened times they do not attempt to control. They can prescribe by law what the unit of money shall be, not what the value of this unit shall be. To suppose that they can, is to suppose that they are able by direct law to prescribe what the general range

of prices shall be, since it is in and by the general range of prices that the value of money is ascertained and expressed.

This error of Bastiat, that to coin money is to prescribe and express its value, is a very common one. Innumerable writers have repeated, one following the other, that the coin stamp is a "*certificate of value*," whereas it is entirely plain that it is only a certificate of the weight and fineness of the metal. It is not even that, from any words or figures on the coin itself, but is so only when it is examined in connection with the laws of the coining country. There is nothing, for example, on the gold or silver dollar of the United States, which gives any information as to the weight or fineness of either, but any person desiring to ascertain what the weight and fineness are, can do so by reading the coinage laws of the United States, on the assumption, which may be safely made, that the mint officers faithfully execute those laws.

Delivering the opinion of the United States Supreme Court in the case of *Bronson v. Rhodes* (7 Wallace), Chief Justice Chase, after reciting the coinage laws, observed :

The design of all this minuteness and strictness in the regulation of coinage is easily seen. It indicates the intention of the Legislature to give a sure guarantee to the peo-

ple that the coins made current in payment contain the precise weight of gold and silver, of the precise degree of purity declared by statute.

An American writer on Banking (Mr. Gouge) says :

Some fancy that it is the authority of the Government that gives money its value. But the true value of money, as measured by the amount of goods for which it will honestly exchange, cannot be effected by the edicts of princes or the acts of parliaments.

The stamp of the State is a mere certificate of weight and fineness.

It was evidently the opinion of Bastiat in respect to money, or at any rate, in respect to metallic money, that its value or purchasing power is fixed and unchangeable. On no other view than that could he have said that it represented a past service, and entitled the holder to receive a present or future equivalent service. On no other view than that could he have said that the value of money is "stated and proved and measured" by the inscriptions on it. A past service does not change, neither do the inscriptions upon money change, but that the value of money is constantly changing, and sometimes largely, is familiar in the experience of everybody who obtains it by a sale, or parts with it in making a purchase.

These errors of Bastiat are not peculiar to him, but are continually encountered in discus-

sions of the nature and measure of the value of money.

The doctrine that it is the number of units of money, other things being equal, which controls the value of each unit, and the prices of commodities and services as expressed in such units, is not likely to be controverted as respects such paper as is used as money merely by the force of law or by common consent, and not on the basis of being kept at a parity with coin. But when we come to the case of metallic money, or to the much more common case of a money on what is called a metallic valuation, consisting in part of metal and in part of paper kept at a parity with metal by an actual or supposed convertibility into it, or by limitation of quantity, or in whatever way, a common impression about it is, that the value of each unit is determined by the value of the bullion in each of such units as are manufactured of metal, and with which class of units the other class of paper units is maintained at a parity of value. On that view of things the value of each unit of such a currency, and which is the only form of a metallic-valuation currency existing in any commercial country, is determined by the weight and fineness of the coin portion of the units. If that view is the correct one, it would be true that coinage,

which is undoubtedly a certificate of weight and fineness, would be, not directly, but indirectly, a certificate of value. While not in terms certifying value, it would certify things which control value, and from which value could be deduced by a short and easy calculation.

This was the view taken by Judge Chase in the case of *Bronson v. Rhodes* just quoted from. After showing that under the mint laws of this country, coinage is a certificate of weight and fineness, he passes from the region of law to the region of economical speculation, and declares "that value is inherent in the precious metals; that gold and silver are in themselves values; and that *those values are determined by weight and purity.*" He concludes, and was justified in concluding, if the value of metallic money is really "*determined by weight and purity,*" that the "*form and impress,*" given by the mint in coining, are in effect "*certificates of value.*"

A living British writer (*McLeod's Principles of Economical Philosophy*, Chapter 4) expresses the same idea in the following observations upon coined money:

By its constant wear and tear, as it passes from hand to hand, it suffers considerably by abrasion, not to mention any bad practices that may be resorted to to lessen its weight, and as we have seen that the quantity or weight of the metal represents the amount of service the owner can command, so does the amount of service it represents gradually and correspondingly diminish.

It would be doing an injustice to Chase and McLeod to impute to them the gross error of maintaining that the value of coined money is as fixed and unchangeable as its weight and fineness, although a literal construction of their language would justify such an imputation. It is doubtless more correct to treat them as intending to say that the value of a coin at any given time is always the same as *the value at such time* of the metal contained in it, and that it is the value of the bullion at every given time which controls and determines the value of the coin at the same time.

That there is at all times, when a metal enjoys the right of being coined without limit on the demand of the holder, an equality of value between a coin and the bullion contained in it, results necessarily from the nature of the case, and as a fact of observation admits of no controversy. But whether this equality arises because the value of the bullion controls that of the money, or because the value of the money controls that of the bullion, or in other words, which of the two values determines the magnitude of the other, is not a matter of fact to be settled by observation, but is a question to be solved only by a careful discussion of all the conditions of a subtle and difficult problem.

A vast majority of the men who have lived

within historical times, have verily supposed that they witnessed every day with their own eyes the rising and setting of the sun. In fact, however, all that they saw was a daily change of relative position as between themselves and the sun. Whether that change is attributable to the revolution of the sun around the earth, or to the revolution of the earth on its own axis, is not a question determinable by the eye or by any of the bodily senses of man, but only by his reasoning faculties. In like manner vast numbers of persons, like Chase and McLeod, suppose that they know from observation that the value of a coin results from and is measured by the value of the bullion contained in it, whereas all that they actually know by observation is the fact that the two values are equal. Which of the two values controls the magnitude of the other, is another question, and an altogether different question.

The old explanation of the (so-called) rising and setting of the sun, that that luminary revolves daily around the earth, is not in itself an impossible and absurd one. Neither is there any intrinsic impossibility and absurdity in the current, common explanation of the equality between the value of coin and the value of its contained bullion, that it is the bullion which gives value to the coin and determines the extent

of that value. But I am persuaded, and shall endeavor to show, that this view in respect to money is really as destitute of any good basis and is as completely disproved by known facts and by sound reasoning, as was the geocentric theory of the solar system.

CHAPTER VII.

THE VALUE OF BULLION DOES NOT DETERMINE, BUT IS DETERMINED BY, THE VALUE OF COINS, WHICH LAST VALUE IS DETERMINED BY THE TOTAL QUANTITY OF BOTH COIN AND PAPER MONEY.

UPON a first and general view of the case, gold and silver are indebted for certainly a very large part, and possibly for the larger part, of their exchangeable value as bullion, to the right which they enjoy, both of them in some countries, and either the one or the other of them in nearly all countries, of being converted into money at the will of their owners. It may be true, to quote again the language of Judge Chase, that "*gold and silver are in themselves values,*" but it is not true, as he seemed to suppose, that their value in the coined form, is

“determined by weight and purity” merely. Mankind have had decisive experiences, and some of them very recently, of the effect produced upon the relative values of the two metals by extensive demonetizations of one of them, and of the effect produced upon the aggregate value of both metals (1) by the suspension and resumption of specie payments in important countries, and (2) by the greater or less use of (so-called) convertible paper money

If we could suppose that a law was imposed upon all nations by some power which they could not resist, whereby they should be compelled to use gold and silver coins as an exclusive money, at a fixed relative mint valuation of equal weights of the two metals, and with free coinage of both metals, we should have supposed a condition of things in which the stock of metals available for coinage would absolutely fix the quantity of money, and therefore absolutely fix the value of money, under any given degree of demand for it. But even in this supposed case, inasmuch as the demand for money is determined by the population and exchanges of the world, which are constantly changing, the value of money, as fixed at one time by the stock of the precious metals available for coinage, would not be its value with the same metallic stock at another time.

The supposed case has, however, never existed, and it is impossible that it should exist. There is no power external to the world, or which can be established within it, able to impose uniform monetary laws upon mankind. In the commercial part of the world which mainly concerns us, we nowhere find an exclusively metallic currency. Where the money is on what is called a metallic basis, the volume of it is always enlarged, in differing degrees in different countries, and in degrees varying at different times in the same country, by the issue of (so-called) convertible paper. Furthermore, it never happens that all commercial nations are at any one time on a metallic basis. Some of them always, and frequently many of them simultaneously, make use of paper money so depreciated below the metals as to expel coins from the actual circulation. Some of the coins so expelled from the actual circulation are hoarded or kept in reserves at home, but another part of them is exported and added to the metallic stock of other countries.

There is still another case, which occasionally exists, and that is the case of a country not on the metallic basis, in the sense of having its paper money convertible into coin, but still keeping its paper, by limitation of quantity, so near a parity with coin, that the paper does

not wholly expel the metals from the actual circulation. That has been the case for two or three years past in Austria, by reason of the substantial parity between its silver florins and its inconvertible paper florins, silver being the exclusive metallic standard of that country. That case existed in France during nearly the whole period of the suspension of coin payments by the Bank of France, during and after the late Franco-Prussian war, when the premium on coin over paper was so trifling as not to be noticed in ordinary market transactions. A parity between coin and paper might be permanently maintained in any country by the method of limiting the quantity of the paper, and it is a method much more reliable than the expedient of coin redemption, which is as essentially and hopelessly treacherous as it is costly and clumsy.

When the standard of a country is metallic, the currency is enlarged by the use of convertible paper, to the extent of the excess of such paper above the metal held in reserve for its redemption.

Under a device of very modern invention, not more than eight years old, we have in some countries full-tender coins of both metals, but with the right of free coinage accorded only to gold, while silver coins are kept, by a limitation of quantity, at a parity with gold coins. That

system prevails to-day in Holland, Belgium, Switzerland, France and Italy, and as respects the four last-named countries, it is established for several years by a treaty between them. In countries under this *regime*, the standard of the money is gold, but the currency is enlarged, not merely by their paper issues, but by the silver in use, the amount of which, although limited, is still very large and important. If the silver five-franc pieces, now in use in France, could be stricken out of existence at a blow, the French currency would not be any more on a gold standard than it is now, but it would be enormously reduced in volume, and the gold franc would therefore be enormously enhanced in value or purchasing power. The existing silver five-franc pieces, invested as they are with all the functions of gold franc pieces, including that of unlimited legal tender, increase the French currency and lower the value of the French monetary unit, precisely as if they were so many additional gold five-franc pieces.

Sir Robert Peel, in 1844, answering his own famous question ("*What is a pound sterling?*"), said that although England might at its pleasure have fixed upon silver, or some other metal, as the material of it, and whatever quantity it pleased of any metal, yet that it had by the legislation of 1816 and 1819 fixed upon gold

and a certain defined weight of gold as the pound. He was entirely mistaken in saying that. All that England did in 1816 by the act establishing gold mono-metallism, and by the act of 1819 prescribing a resumption of coin payments, was to fix the quantity of gold in a metallic pound. But it had in 1816 and 1819, and long before, other pounds made of paper, and it has, even under the legislation of 1816, silver coins in which debts of not exceeding two pounds may be paid, and which coins do in fact constitute the sole money used by vast masses of the British population. As to paper pounds, Sir Robert Peel did by his own act of 1844, continue in perpetuity the policy of issuing them, although under a new plan of exactly defining the quantity (about \$150,000,000) which might be issued without any gold being kept in reserve for their redemption.

An acute English writer, J. Barr Robertson (*Westminster Review*, January No., 1881, article *Bi-metallism and Finances of India*), says:

The standard in England, using gold as sole unlimited legal tender, silver as limited legal tender, and notes like those of the Bank of England, as unlimited legal tender except at the Bank itself, and notes like those of the Scottish, Irish and English provincial banks, is the total amount of the effective circulation of money, whether gold, silver or notes. . . . If the present amount of gold and its representatives in actual circulation in the United Kingdom are £150,000,000, the sovereign would still be of the same weight and fineness, if that

amount were reduced £ 75,000,000. In the latter case, the standard of value would be one-half of its former quantity, all prices would be a half less than in the former case, and the sovereign would have double its former purchasing power. However self-evident this fact may be, it is continually ignored in England, where the current belief infecting even the minds of our leading statesmen is that a sovereign is a coin of fixed value.

In a pamphlet entitled *The Monetary Conference of 1881*, recently printed by an American writer, Hon. A. J. Warner, who is as distinguished by his masculine vigor and grasp of mind as by the amplitude of his knowledge of financial events and discussions, the following accurate account is given of what constitutes the monetary scale of valuation :

It should be understood, when we speak of the gold standard or the silver standard, that there is in fact no such thing as a purely gold valuation in any country, or a purely silver valuation. The real standard or scale of valuation in any country is its effective money volume. Thus, while in England the standard of their money is gold, the gold itself has a reduced value because of the use of paper as money ; and the real valuation is her whole effective volume, consisting of gold, convertible bank notes and subsidiary silver. The true valuation in the United States is the effective volume of gold, silver, bank notes, and greenbacks.

When M. Cernuschi was in this country and gave his financial views (Feb. 5, 1877) to the United States Monetary Commission, he said that "*metallic money is issued by nature,*" and that "*there is the warrantee of the value of the metallic money, that nobody has the control of the*

quantity." Waiving for the present the observation that what nature issues is not metallic money, but is gold and silver, which are made money or not, as governments may please to decide, it is quite plain that even if nature did solely issue metallic money and solely fix its quantity, there would be no resulting guarantee of its value against the interference of governments, unless they were also restrained from supplementing and diluting metallic money by paper money. In order to establish that control of nature over the value of money which M. Cernuschi imagines is safer than that of governments, nature must not only have the exclusive power to make metallic money, but also the power to make metallic money the exclusive money of the world.

M. Cernuschi saw clearly enough in 1877, and now sees, that a considerable part of the value of the precious metals is not derived from their essential qualities, but from their selection by law as the material of money.

To the United States Monetary Commission (1877) he said :

Certainly every one understands that, as respects paper money, the value is created by law ; but it is, perhaps, not easy for every one to admit that, with regard to metallic money also, the value is created by law. It is, however, the fact.

Of the series of propositions which he sub-

mitted in April, 1881, to the International Monetary Conference in Paris, the one numbered fifteen in the series was the following :

The value which gold and silver could possibly have as merchandise, if they had not been selected by law as the material of money, is not an element constituting their value as money (*n'est pas un element constitutif de la valeur de la monnaie.*)

But M. Cernuschi makes the two capital mistakes, *first*, of supposing that the power of governments over the selection of a metal as money is exhausted when they have once made a selection, and, *second*, of overlooking the fact that after having elected a metallic money they can change its value by adding a paper money, or can elect not to have a metallic money at all. To the United States Monetary Commission (1877) he said :

The legislator of England has had the right of making gold only money; the legislator of India has had the right of making silver only money; the legislator of France has had the right of making bi-metallic money; but when the choice is made the government remains with folded hands and has nothing to do with the quantity of money.

The truth manifestly is, that a government which has selected gold to-day is not under any compulsion to "remain with folded hands," but may select silver to-morrow, return to gold the day after that, and finally on the day still next succeeding, establish bi-metallism. Some of the

governments of Europe have in recent times changed their policies in this respect with remarkable rapidity and frequency. The hands of a government may be folded, but the power to unfold them is never for an instant lost. And whatever they may do about the metals, they can still affect the value of money at pleasure by greater or less issues of paper, or they may be compelled, in spite of themselves, by war or other exigency, to make a complete substitution of paper for the metals.

As a matter of fact, metallic money is not in circulation at all in many commercial countries, being expelled by paper depreciated below the metals, and there is not a single example of a commercial country on what is called the metallic basis, in which the number of the units of money is not increased and their value thereby reduced by paper issues. On the Continent of Europe the present tendency in all the specie-paying countries is towards a still further expansion of paper as an offset to the shrinking of the volume of gold. France has resumed, and on a great scale, the issue of fifty-franc (\$10) notes, and in respect to 100-franc (\$20) notes, the issue of which was much restricted until within a year and a half, the quantity in use is now largely multiplied. The pressure for the circulation in England of £1 notes,

which have always circulated in Ireland and Scotland, is becoming distinctly stronger and more aggressive every day. However long and thoroughly Englishmen may have been educated in the idea that a coined pound sterling, in the form of a gold sovereign, is a fixed and unvarying standard of value, many of them are evidently acquiring a dim and vague comprehension of the possibility that pounds sterling of both kinds, coin and paper, would be more abundant and obtainable at a less sacrifice in exchange for commodities and services, and that the intensity of the demand for gold would be somewhat slackened, if the Bank of England would issue paper sovereigns at the same time that the British mint is issuing gold ones.

In this country the contrary effort is being made to bring more gold and silver into circulation by suppressing all government and bank notes under the denomination of \$20. The existing use of small notes conforms to the long-established habits of the people, and is the most convenient and acceptable to them. No change of laws, in an unpopular and odious direction, is ever proposed without some well-defined and strongly-desired object; and it is not difficult to discover in this case that the purpose is to contract the volume and enhance the value of money. The conspicuous advocates

of the new scheme are either persons who habitually maintain that money grows better precisely in the proportion that it grows scarcer and dearer, or persons who are bullionists merely because they are mine owners.

The efforts in the specie-paying countries in Europe to increase the use of paper, and in this country to increase the use of the metals, although directed to the accomplishment of different objects, are both based upon the same view and upon the sound view, that where money is on what is called a metallic basis, the value of it is not controlled by the bullion value of the metals, but by the total quantity of the money.

In his letter of March 3, 1879, to the Bullion Club of New York, Mr. Gladstone, now the British Prime Minister, without assigning reasons therefor, declared his opinion to be that "*gold is the best standard.*" That may or may not be so, but he cannot point out any country where such a standard of valuation exists. It certainly does not exist in the United Kingdom of Great Britain and Ireland. It is true that gold is there the standard with which all other money is obliged to be kept at a parity, but it is the total amount of money of all kinds in the British islands, which constitutes the scale of valuation which determines the prices of British property and services. It is one thing for a par-

ticular metal to be the standard of the money of a country in the sense that all other descriptions of money in such country are at a parity with it, and quite another thing for the same metal to constitute the whole money, so that the quantities of the metal and of the money are the same. Prices, other things being equal, depend upon the quantity of the entire money in use, and not upon the quantity of a part of the money. Great Britain has a gold valuation, but only in the same sense in which the United States have it at the present time, although the proportion of gold is much larger in the British than in the American currency. We have not only more paper relatively to the whole amount of money, but we have a certain quantity of full-tender silver, of which the British have none. But this silver is kept now, and at the present rate of coinage will continue to be kept for ten or fifteen years longer at a market parity with gold. In short, gold is to-day, and under present laws will long continue to be, as completely the standard of American money as it is of British money, and yet nobody would think of describing the monetary scale by which property and labor are priced in this country as being a gold scale, in presence of the masses of silver and paper which enter into our currency and enlarge its volume.

Nobody would think of saying that the monetary scale which determines prices is a gold scale in Holland, where the proportion of gold to the entire monetary mass is even less than it is in the United States. Nevertheless, both the Dutch paper money and the Dutch silver money are kept at a parity with gold, although two-thirds of the metallic money consists of silver, at a mint valuation two per cent. higher relatively to gold than is given at the American mint.

M. Cernuschi, at the International Monetary Conference of 1881, submitted a paper entitled "*Questions to the Belgian Delegates*," which contains the following:

Is it not true that the volume, the paying power, of the sovereign of unlimited coinage is more or less great according as the number of sovereigns that might be coined with the whole mass of gold in existence is more or less great? And is it not consequently true that the sovereign has a mathematical value?

Considering that the number of shillings that might be coined with the mass of existing silver is stable, would the value of the shilling of unlimited coinage and unlimited forced circulation be less stable than that of the sovereign?

Coins are counters whose value is purely legal, but guaranteed by nature itself, which has never furnished and does not furnish but a limited number of them.

If sovereigns, dollars, francs and marks could only be made of gold and silver, the possible number of them would undoubtedly be fixed by

the disposable quantity of the metals at any given time, but all those moneys can also be made, and actually are made, of paper; and within wide limits paper sovereigns, dollars, francs and marks can be kept at a parity of market value with those manufactured from the metals. Nature "*does not furnish but a limited number of them,*" but governments can, if they please, increase the number very greatly.

The enlargement or contraction of the volume of money in all the countries on a metallic basis, by the suspension or resumption of coin payments in other countries, is a fact of the same class, and depending upon the same principles, as the fact of the enlargement or contraction of the volume of money in any one country on a metallic basis by a greater or less use of paper in such country. We can easily see that if gold should be demonetized everywhere outside of Great Britain, the principal bulk of that metal would flow thither, and that the coined pounds sterling would be so multiplied that the value of both metallic and paper pounds sterling would experience a great fall. It is plain, also, that in proportion as other countries either newly adopt the use of gold money, or use more of it than formerly, there will be less within reach of Great Britain to be manufactured into sovereigns, so that the value of all

credits reimbursable only in pounds sterling will be enhanced. We can easily see that when any country, which has been using more or less coined money, suspends specie payments, the metal it has been using will wholly or largely flow out, and go to swell the amount, and thus reduce the value of the metals elsewhere, and that *vice versa*, the resumption of coin payments by a country which has been in a state of suspension, operates as a drain upon the metallic resources of other countries. It will be most convenient to reserve for a separate and distinct consideration some conspicuous historical examples of the effect produced within the last hundred years upon the value of coined money in the world, and as a consequence upon the value of bullion in the world, by the alternating suspensions and resumptions of coin payments by single important countries, or by groups of countries.

Thus far, I have only considered the influence exerted upon the value of the coined money of a country by paper kept at a parity with it in the same country. But in fact, an influence is also exerted upon it by the issue of such paper in other countries. The proportionate distribution of money among the different nations of the world is the same, whether the money of all of them is exclusively metallic, or

whether a part or all of them are on what is called a metallic basis, or, in other words, are in the use of more or less paper kept at a parity with the metals. It is from the operation of this principle that, to quote again the words of Condé Raguet, "*every emission of a paper currency in any country drives out a portion of its coin,*" and "*must augment the currency everywhere, after time has been afforded for its distribution ;*" and it augments the currency of other countries whose money is exclusively metallic, in the same proportion in which it augments the currency of other countries, whose money is merely on a metallic basis. If England, Germany and France should increase their paper money, by issuing it of as low a denomination as is issued in this country, the proportion between their aggregate money and the aggregate money of the rest of the world would undergo no change, if other things remained the same. The volume of money in all countries, including England, Germany and France, would be increased by a uniform percentage, and, therefore, by the same percentage in countries using an exclusively metallic money, as in other countries. What political writers call the "*solidarity of nations*" is not more complete in political aspects, than is the "*solidarity*" of all nations on the metallic standard in monetary aspects. A coun-

try, by using itself only the metals, cannot thereby escape perturbations in the volume and, therefore, in the value of its money, from the alternating suspensions and resumptions of specie payments, and the alternating expansions and contractions of paper money in other countries.

In discussions upon the increase or diminution of bank notes in particular countries, it is frequently pointed out that the fluctuations in prices and variations in the temper of trade in such countries, are observed at the same time and in an approximately equal degree in other countries, where there has been no increase or decrease of bank notes, and even where the currency is exclusively metallic.

The case of Hamburg has been a standing puzzle to British writers upon currency. Prior to the present organization of the German Empire, the money of that great commercial city was exclusively metallic, the paper of its bank being the representative of an equal amount of the metals, but it did not thereby escape a full participation in the ups and downs of prices and trade experienced in countries on the metallic standard but using also bank notes. Many authorities, indeed, affirm that the crisis in Hamburg in 1857 was worse than it was anywhere else. In reference to that particular crisis, McLaren says:

The commercial distress in Hamburg has been greater than in any other place; greater even than in America.

Fenn (*Funds*) gives the following account of what happened:

Confidence was entirely destroyed, and it was thought imperative that the State should interfere. . . . Altogether, about 220 Hamburg and Altona houses suspended payments in the months of November and December, 1857.

But such cases, instead of proving that changes in the volume of currency produce no effect in the country where they occur, only illustrate the quite different truth, that they produce an effect everywhere.

In commercial countries having mixed currencies of paper and metal, the value of their coined money is affected by the paper which they themselves use, and also by the paper which other countries use. In countries having only metal money, its value is fixed, irrespectively of its bullion material, by the general value of money throughout the world as affected by the use of paper in other countries.

It may be said that the use of gold and silver as the material of coin is as much one of their established uses as their employment for gilding, ornaments, and plate, and that their bullion value is fixed by the proportion between the demands of all kinds for them and their total supply. Without doubt that is true, but

the distinction may be fairly and usefully made, that their lowest possible value is fixed by the demand for them as commodities, which preceded and may survive the use of them in coinages, while their highest actual value is fixed by that of the coined money, into which they now have and so long have had the potentiality of conversion.

The glitter and splendor of gold and silver may please the eye and tickle the fancy of children and barbarians, but that they can awaken in the breasts of civilized men any vehemence of desire to possess them, is impossible and inconceivable. What civilized men desire is not gold and silver, but money, and gold and silver chiefly only on account of their convertibility into money, and the intensity of their desire for these metals is gauged exactly by the intensity of their desire for money.

It is not one of the merits, if it would be a merit, of a paper money on a metallic basis, that it is fixed by the "*weight and purity*" of the bullion material of coins. There is no such fixation as that. In respect to a paper money, which is kept at a parity with the metals by convertibility into them, or by controlling its quantity, what can be claimed is, that the limits of its possible expansion and contraction, instead of being indefinitely great, are kept within cer-

tain restrictions, since otherwise its parity with the metals could not be maintained.

CHAPTER VIII.

SPECIE SUSPENSIONS AND RESUMPTIONS IN ONE COUNTRY ACT DIRECTLY UPON OTHER COUNTRIES. EXTRAORDINARY EFFECTS OF THE FRENCH SUSPENSION of 1870.*

I HAVE endeavored to show that the value of metallic money, and of paper money which is kept at a parity with the metals, is not controlled by the value of bullion, but that the exactly contrary proposition is true, that the maximum value of bullion fluctuates with and is regulated by the value of the money into which it may possess a legal potentiality of conversion. This proposition rests upon the impregnable doctrine that the value of the units of money depends, other things being equal, upon their number or quantity, and upon the fact that this number, or quantity, is not, in any commercial country on what is called a metallic basis, the number of

* So much of this chapter as relates to the French suspension of 1870, was first published in the New York *Banker's Magazine* for October, 1879.

merely the metallic units of money, but is the total number of the units of money of all kinds, which is enlarged in all commercial countries by varying additions of paper.

I propose now to invite the attention of the reader to the alternating enlargement and diminution of the volume of money in countries on a metallic basis, which results from the changing policies or practices of other countries, in respect to suspending and resuming specie payments.

It needs no argument to show that a country suspending specie payments does thereby increase the quantity of the metals in the rest of the world, or that a country which has been in a state of suspension cannot resume specie payments without diminishing the metallic supplies of other nations. All this is very plain as a matter of reasoning, but it will be useful on many accounts to consider some cases of the kind which have actually occurred during the present century, and especially the extraordinary effects which were produced by the suspension of specie payments in 1870 by France, the chief metal-using country in the commercial world.

According to Jevons, British prices, stated in pounds sterling, which, of course, were not metallic pounds, when the Bank of England was in a state of suspension from 1797 to 1821,

were substantially stationary from 1782 to 1795. Jevons makes all his comparisons with the prices of 1782, which he calls 100, and he shows that they began to enlarge after 1795 until they reached their maximum of 157 in 1809. This rise is not accounted for in any appreciable degree by the depreciation of Bank of England notes below coin, which did not become important until after 1809. Nor was there between 1795 and 1809 any increase of the production of the metals relatively to the commerce and population of the world, which can account for the great rise of prices during those two dates. No general cause for the rise can be suggested, except the suspension of specie payments by the Bank of England in 1797, and generally on the Continent of Europe, outside of France, during the Napoleonic wars. The belief that this was the main cause, is further confirmed by the fact that prices fell greatly during the preparation for resuming coin payments after the pacification of Europe in 1815. British prices were never so high as 100 in any one year between 1820 and the dates of the California and Australian gold discoveries, except in the single year 1825, when they reached the figure of 103, under an enlargement of the British bank-note currency, commonly ascribed to a law passed in 1822, extending the right of the British banks

to issue £1 notes. In 1849 British prices had fallen to 64, and must have been equally low in other commercial countries on the metallic basis, as prices in all such countries tend to rise and fall simultaneously.

But while there was no apparent cause for the rise of British prices between 1795 and 1809, except the general suspension of coin payments throughout Europe, it is not equally true that the subsequent fall of British prices to 64 in 1849 can be attributed solely to the resumption of coin payments after the downfall of Napoleon. There was certainly one co-operating cause, in the diminution of metallic supplies from the New World, which resulted from the revolutionary troubles in Spanish America commencing in 1810. In the acrimonious discussions which immediately preceded and followed the British resumption of coin payments in 1821, the effect of this falling off in the metallic supplies attracted very little attention, and, indeed, the full extent of the fact was not commonly understood until about ten years later on.

But whatever other cumulative and intensifying causes may have been in operation, it is not doubtful that the great fall in the value of metallic money in the first decade of this century was largely due to the diminished demand for it which resulted from the general suspen-

sion of specie payments in Europe, and that the great rise in the value of metallic money during the thirty years preceding the California and Australian gold discoveries, was largely due to the general resumption and maintenance of specie payments.

In the currency debates in the British Parliament, in 1811, those who denied that the then existing high prices were the result of the suspension of the Bank of England and of its large note issues, made it one of their capital points that prices had risen quite as much in France as in Great Britain. They quoted in proof of that fact the statements made in a report (1805) of the Agricultural Society of Paris, that in most of the Departments wages had increased one-third since 1789, and in a few had doubled; that all instruments of cultivation were raised in proportion, building materials from a fourth to a third, beasts of labor about one-half, &c., &c. This point does not appear to have been answered either at the time or subsequently. McLaren, in his *History of the Currency* (1857), referring to the rise of British prices during the Bank suspension, observes: "That prices rose equally on the Continent, where there was no suspicion of any increase of the currency, is very difficult of explanation."

But whether the English had any "suspicion"

of it or not, it is clearly true, that when they abandoned the use of the metals during the Bank suspension, from 1797 to 1821, the gold and silver expelled from the British circulation remained, nevertheless, in existence, and so far as Continental Europe was concerned, they reappeared principally in France. The French currency was almost exclusively metallic, partly in consequence of the repugnance of that country to paper, arising from the recent experience of the *assignats*, and partly in consequence of the personal opinions on that subject of the first Napoleon.

Since 1850, omitting minor, temporary, and local fluctuations, we have had the following distinctly-marked movements in the prices of commodities and services in the commercial world, as measured and stated in moneys on the metallic basis :

First, an upward movement, commencing soon after the California and Australian gold discoveries and continuing till about 1864-5.

Second, a distinctly marked tendency to a downward movement from 1864-5 until 1872-3.

Third, a swell of prices in 1872-3, very sudden and marked in Europe, although less felt in the United States.

Fourth, a fall after 1872-3 to an equally low level on both sides of the Atlantic, the mini-

mum having been reached in 1878-9, when the range of prices was about as low as during the five years from 1845 to 1850, the extreme point of depression of the century.

Fifth, a considerable recovery of prices during the last half of 1879 and during the first half of 1880, but the greater part of which recovery proved to be merely temporary, and has already been lost.

It is not proposed to examine all the causes of these various movements of prices during the past thirty years, but to invite the attention of the reader to the single point of the effect produced upon prices by the suspensions and resumptions of specie payments in several countries during the period referred to.

It is agreed on all hands that the rise of prices, commencing soon after 1850 and reaching its maximum in 1864-5, originated in the extraordinary gold production in California and Australia. But, although the fact has been frequently overlooked, it would seem to be certain that this rise of prices owed some part of its height, and probably a still greater part of its duration, to the suspension of specie payments in Russia in 1857, and to the suspension of such payments in the United States in December, 1861. Since 1856 the aggregate production of gold and silver has been stationary, or

a little declining, the increased yield of silver being hardly equal to the falling off in the yield of gold. Considering that the exchanges and population of the world have been expanding in a marked degree since 1856, it would seem that the rise of prices which began soon after 1850, would have reached its culmination before 1864-5, if the suspensions in Russia and in this country had not occurred.

It would also seem that the tendency to a decline of metallic prices which manifested itself about 1865, would have operated more decisively than it did, notwithstanding the temporary credit expedients made use of to stave it off, if it had not been checked by the suspensions of specie payments in Italy in 1866 and in Austria in 1868. They are both of them not only populous countries, but in a very respectable degree rich and commercial countries, and their suspensions furnished a large supply of the precious metals to the rest of the world.

It is when we come to the swell of prices in 1872-3, that we find the greatest diversities of opinion as to the cause. Or it would, perhaps, more accurately describe the case to say that financial writers having apparently agreed to overlook the real cause, have been floundering ever since in a bottomless morass of idle theories, and that the depths to which they have

sunk in it have been in general proportioned to the vigor with which they have floundered.

It will be most convenient, first of all, to get as nearly as practicable the measure of the fact with which we have to deal, of the rise in prices in 1872-3. For that purpose I will here reproduce the most reliable figures within reach, of prices during a series of years in France and Great Britain, which are, next to the United States, the two most important commercial nations in the world. The British prices given are in a money kept at a parity with gold, and the French prices in a money rarely depreciated below it, and never to any degree needing to be taken into account.

M. de Foville, a statistical writer, published in 1879, in *L'Economiste Francais*, a table of the prices of French imports and exports for the year 1827, and for the thirty-one years from 1847 to 1877, both inclusive. The prices quoted are the final and definitive figures of commissions appointed by the Government, consisting of representatives of all branches of trade, and give as accurate an account of the actual condition of the French markets from time to time as could possibly be obtained. Such a commission to report prices was appointed in 1827, but for none of the intermediate years between 1827 and 1847.

It is, of course, of no consequence which of the years is taken to compare all the others with. For reasons not necessary to be stated here, M. de Foville has taken 1862, the average prices of which he calls par, or 100, and he notes the rises or falls above that in other years. His table is as follows:

<i>Year.</i>	<i>Imports.</i>	<i>Exports.</i>		<i>Year.</i>	<i>Imports.</i>	<i>Exports.</i>
1827 ..	81 ..	96		1862 ..	100 ..	100
1847 ..	80 ..	78		1863 ..	102.5 ..	100.8
1848 ..	69 ..	80		1864 ..	104.5 ..	101.3
1849 ..	76 ..	87.5		1865 ..	99.2 ..	97.8
1850 ..	82 ..	91		1866 ..	93.5 ..	91.5
1851 ..	80 ..	90		1867 ..	89.7 ..	87
1852 ..	81 ..	98		1868 ..	87.2 ..	83.5
1853 ..	88 ..	109		1869 ..	86.6 ..	82.9
1854 ..	91 ..	108		1870 ..	89.3 ..	81.2
1855 ..	95 ..	104		1871 ..	93.9 ..	81.4
1856 ..	106.5 ..	111.5		1872 ..	97.3 ..	83.3
1857 ..	105 ..	110		1873 ..	96.1 ..	80.3
1858 ..	92 ..	102		1874 ..	89.9 ..	76.6
1859 ..	95 ..	109		1875 ..	86.7 ..	73.8
1860 ..	98 ..	105		1876 ..	87.5 ..	75.9
1861 ..	99 ..	99		1877 ..	85.2 ..	72.9

Upon this table M. de Foville observes: "The definitive figures of our foreign commerce for 1878 are not yet published, but it is known that they will exhibit a depression still more intense."

The extraordinary fall in the prices of French imports in 1848 was caused by the revolution of that year, which completely paralyzed the French markets.

The rise in prices in 1872-3 is shown principally in the imports.

As will be seen, the fluctuations in the prices of imports differ widely from the fluctuations in the prices of exports. Taking the entire fifty years in one general view, there has been a rise in the prices of imports represented by the difference between the figures 81 and 85.5, and a fall in the prices of exports represented by the difference between the figures 96 and 72.9.

It is not to be assumed that in each of these fifty years there has been in the imports and exports, respectively, exactly the same proportion between raw materials and manufactured products, but the general character of French commerce has not much varied within that period. Its exports have consisted most largely of manufactured products, and its imports of raw materials. We shall make no important error in assuming that the proportions of the two were about the same during the half century as they were during the first five months of the last eight years, as shown in the exhibit on next page.

Looking to the exports for the fifty years from 1827 to 1877, it may fairly be assumed that that portion of them which consisted of natural products rose in price as much as the natural products which were imported, that is

to say, from 81 to 85.5. But the much greater fall in the prices of exported manufactured articles produced a fall in the prices of the aggregate mass of exports from 96 to 72.9.

IMPORTS (*in francs*).

<i>First five months of</i>	<i>Natural Products,</i>		<i>Food and all articles</i>		<i>Other articles.</i>
	<i>being raw materials used in manufactures.</i>		<i>of alimentation.</i>		
1872 ..	887,924,000	..	335,287,000	..	70,870,000
1873 ..	787,422,000	..	273,378,000	..	73,206,000
1874 ..	832,364,000	..	348,949,000	..	61,265,000
1875 ..	815,222,000	..	267,238,000	..	78,175,000
1876 ..	923,430,000	..	321,748,000	..	68,588,000
1877 ..	839,014,000	..	365,949,000	..	95,946,000
1878 ..	920,768,000	..	428,531,000	..	83,333,000
1879 ..	892,932,000	..	671,493,000	..	86,874,000

EXPORTS (*in francs*).

	<i>Natural Products,</i>		<i>either articles of food</i>		<i>Other articles.</i>
	<i>Manufactures.</i>		<i>or raw materials for manufactures.</i>		
1872 ..	834,320,000	..	585,762,000	..	69,970,000
1873 ..	900,912,000	..	641,237,000	..	93,207,000
1874 ..	809,368,000	..	514,001,000	..	79,577,000
1875 ..	860,107,000	..	611,387,000	..	86,581,000
1876 ..	792,690,000	..	623,357,000	..	71,533,000
1877 ..	714,240,000	..	592,571,000	..	70,423,000
1878 ..	672,292,000	..	503,214,000	..	63,619,000
1879 ..	688,281,000	..	507,967,000	..	65,063,000

In the discussions upon the fall in metallic prices within the past few years, which has undoubtedly been largely caused by the stationary production of gold and silver mines, in connection with the policy of discarding the use of

one of the metals in important countries, it is said that the fall in prices in manufactured articles is due in part to the progress in inventions and machinery, which make their production more abundant and cheaper; and it is urged that so much of the fall in general prices as arises from this cause ought not to be considered as evidence of any contraction in the volume of money. What is said on this point seems to be true. The real value of fixed incomes which are based upon accumulations is increased by every new process which cheapens any commodity in general use, but it is not increased at the expense or loss of others, and it is a benefit in which the producers of other articles and persons who live upon wages participate equally, in proportion to their consumption of the cheapened commodity. That particular kind of a fall in prices is one of those advantages of an advancing and improving civilization which is for the general good of the community, including those who now labor as well as those who possess whatever represents the savings of labor performed at previous periods. Nor does this particular kind of a fall in prices indicate any disturbance in the proportion between the volume of money and the volume of other things, upon which the general range of prices in the long run depends.

As there is no appreciable proportion of manufactured articles in the list of things imported into France, the prices of French imports are very little affected by any fall in the prices of manufactured articles resulting from more facile methods of producing them. The column of prices of imports, in the table of M. de Foville given above, may therefore be consulted without any need of making any allowance of that kind. This column shows a swell of prices in 1872-3, not indeed reaching the swell of prices in either 1856 or 1864, but still very marked. In the British tables of prices, this same swell of prices in 1872-3, is shown, although the points reached were, in Great Britain as well as in France, considerably short of those reached in 1864-5.

The table of British prices most often referred to in this country is that of the *London Economist*, based upon the average of twenty-two leading and representative articles. In a paper read in June, 1879, before the London Statistical Society, Mr. Bourne makes two criticisms, both of which seem to be just, upon the table given by the *Economist*. The first is, that it omits coal, which is too important an article to be left out, and the second is, that among the twenty-two articles selected by the *Economist*, four are different forms of cotton manu-

factures, which gives an undue effect upon the average of prices to the enormous rise in the value of raw cotton, which took place during the American civil war.

The following table shows the variations in the average prices of nearly all the years from 1851 to 1878. In the first column, the figures of the *Economist* are given, and in the second column the figures of the *Economist* corrected as above by Mr. Bourne. There are also given the prices for the month of December, 1878, as stated by the *Economist*, and also by the *Economist* as corrected by Mr. Bourne, and which show a large falling off as compared with the average prices of the entire year 1878:

<i>Economist</i> corrected by <i>Economist. Mr. Bourne.</i>					<i>Economist</i> corrected by <i>Economist. Mr. Bourne.</i>				
1851	104	..	103	....	1866.....	162	..	141	
1852	—	..	—	....	1867.....	137	..	128	
1853	107	..	114	....	1868.....	122	..	122	
1854	—	..	—	....	1869.....	121	..	118	
1855	—	..	—	....	1870.....	122	..	119	
1856	—	..	—	....	1871.....	118	..	118	
1857	136	..	140	....	1872.....	129	..	133	
1858	119	..	123	....	1873.....	134	..	142	
1859	115	..	118	....	1874.....	131	..	136	
1860	122	..	123	....	1875.....	126	..	130	
1861	124	..	124	....	1876.....	123	..	123	
1862	131	..	125	....	1877.....	123	..	126	
1863	158	..	144	....	1878.....	116	..	118	
1864	172	..	151	....	1878 (Dec.)	101	..	106	
1865	162	..	138						

The standard of comparison is the average range of prices from 1845 to 1850, which were the lowest for the century, and which are called 100.

Mr. Bourne adds, in respect to his figures for the years 1872-3-4-5: "The exceptionally high prices to which coal, as well as iron and other articles in the manufacture of which coal is consumed, rose in 1872 and following years, unduly raises the index numbers. But for this cause, those for 1872 to 1875 would probably have been 125, 132, 127, 124, rather than 133, 142, 136, 130."

Comparing the average prices of the two years, 1872-3, with the average prices of the four preceding years, there is shown in French imports a rise from 89.2 to 96.7, and in British prices a rise (according to the London *Economist*) from 120.7 to 131.5, or (according to Bourne) a rise from 119.2 to 137.5, or a rise from 119.2 to 128.5, if there be left out of the calculation "the exceptionally high prices" in 1872-3 of "coal, together with iron and other articles in the manufacture of which coal is consumed."

I have never seen any exact figures of the rise of prices in Germany in 1872-3, but it has always been reported as considerably higher than in either France or Great Britain. It may

well be supposed to have been so, inasmuch as it was upon Germany that the outflow of French gold and silver in 1871 was earliest and most conspicuously directed.

It is manifestly not possible to ascribe this swell of European prices in 1872-3 to any increase of the supply of the metals from the mines, which at the most was only stationary in absolute amount, and which was declining relatively to the augmenting population and exchanges of the world. The causes of this swell of prices have been much debated by European writers, but they never seem to have hit by any chance upon the most obvious and conspicuous cause, and undoubtedly the most efficient cause, which was the sudden addition to the metallic money of Germany and of Europe generally, which resulted from the suspension of specie payments by the Bank of France during the Franco-German war of 1870-1, and from the memorable indemnity exacted of France and actually paid by France within a very brief period after that war closed. These events made France, for the time being, a new mine of gold and silver for the rest of the world. The substitution of paper for the precious metals as the current money of one country, has the same effect in increasing the volume of the money of other countries still using the metals, as more

metallic discoveries, or the enlarged production of old mines. The effect upon prices in other countries is just as certainly stimulating, as that the resumption of specie payments in a suspended country, by making a new demand for the metals, produces a depression in metallic prices, not merely in the resuming country, but over the world.

The indemnity paid by France between June, 1871, and September, 1873, in cash, and exclusive of the \$65,000,000 allowed for the value of railways in Alsace-Lorraine was \$998,000,000, to which is to be added the \$40,000,000 paid as a ransom by the City of Paris. It is true that no sums so vast could have been or were paid in actual metal. Of the ransom of the City of Paris, only one-fourth was paid in specie transferred bodily to Germany. The National indemnity was paid, \$102,500,000 in French gold and silver; \$21,000,000 in German coin and bank notes; \$25,000,000 in notes of the Bank of France; and \$849,500,000 in bills of exchange on England, Holland, Belgium, and Germany. The drawing of these bills must have caused more or less gold and silver to be sent to the countries drawn upon, or, at any rate, must have diminished the amount of gold and silver which France would otherwise have imported from them. It cannot be known exactly

by how much the specie stock of France was diminished by these transactions, but we know that it must have been greatly diminished, both from the specific figures of the reduction of specie in the Bank of France, and from the concurring contemporaneous statements as to the manner in which the whole people, in every part of the country, came forward with their hoarded francs, and bought the National bonds which were issued to liberate their territory from the occupying enemy.

At the end of January, 1870, the Bank of France held a metallic reserve of \$240,000,000, which was rather increased in July when the war broke out. The minimum which it subsequently reached was \$79,750,000, on the 23d of February, 1871, a few days before the signing of peace preliminaries. At the end of October, 1873, the reserve was somewhat recuperated, but even then only stood at \$160,000,000, or \$80,000,000 less than before the war. During this period of a greatly diminished specie reserve, the outstanding notes of the bank were largely increased, thus taking the place in the circulation of the exported gold and silver:

CIRCULATION OF BANK OF FRANCE.

End of January, 1870.....	\$ 240,000,000
“ December, 1870.....	345,000,000
October 31, 1873.....	614,000,000

The figure of the circulation October 31, 1873, was the maximum ever reached:

That this increase of bank-note circulation was not an addition to the previous metallic circulation, but rather a substitution for the metallic money which was exported, is shown by many considerations. The increase of prices was less in France than it was in either England or Germany. The premium on coin remained within a small fraction of one per cent., except for a few days at the end of 1870, when it rose from a special cause, the highest figure reached being four per cent. The suggestion that there may have been hoarding of metallic money is negatived, by the perfect confidence which the French people manifested throughout in the finances of the government and of the Bank of France. The loans of the government were taken on a scale without parallel, and the notes of the bank were everywhere accepted in transactions as the equivalent of coin.

That the swell of prices in 1871-2-3 in Europe had its principal origin in some special European condition (and no condition peculiar to that continent can be pointed out except the sudden metallic outflow from France) is further corroborated by the fact, that this swell of prices extended to the United States, only to the extent of a very slight increase of metallic prices in 1872, as compared with 1870.

The table of average prices (in greenbacks) of the *N. Y. Public*, in which 1860 is taken as the standard and called 100, is the best and most generally accepted authority on that subject. The *Public's* figures are given below, from 1865 to 1873, being the averages of each whole year. In a parallel column, the average gold value of the greenback for each whole year is given from *Spofford's Almanac*:

Year.	Percentage of the gold value of the			Year.	Percentage of the gold value of the		
	Greenback prices.	greenbacks.			Greenback prices.	greenbacks.	
1865 ..	184 ..	63.6	....	1870 ..	136 ..	87	
1866 ..	167 ..	71	...	1871 ..	134 ..	89.5	
1867 ..	189 ..	72.4	....	1872 ..	138 ..	89	
1868 ..	195 ..	71.6	...	1873 ..	132 ..	87.09	
1869 ..	156 ..	75.2	....				

The metallic prices of the United States in 1871-2-3 show only the merest trace of the disturbance which is so marked in the tables of English and French prices, and which is well known to have been even more conspicuous in Germany, upon which the metallic flow from France operated most directly and with the greatest force.

As it was the conspicuous cause of the swell of metallic prices in Europe in 1872-3, that so much metal flowed out of France into other European countries, being replaced in France itself by unprecedented issues of bank notes, we

can have no difficulty in concluding that the recoil of European prices after 1872-3 was largely due to the subsequent return of the French currency to its normal condition. The coin in the Bank of France, which was at the minimum of \$79,750,000 in February, 1871, and was only \$160,000,000 in October, 1873, had reached the figure of \$400,000,000 in 1876, and retained it until September, 1880, while the coin in circulation became so large as to give color to estimates in 1879 (undoubtedly exaggerated), that the total coin in France, in and out of the bank, was \$1,000,000,000 in gold and half as much in silver. It is impossible to fix the exact measure of the outflow of specie from France prior to 1872-3, and of the return inflow after that date; but there is in the history of the metals no parallel to it, either in the magnitude of the movements, or in what is of even more consequence, in their suddenness.

Following the return of France to coin payments, and to some extent contemporaneous with it, was the return of this country, January 1, 1879, to what was very nearly a resumption in gold, the pressure of the last event having been alleviated in only a slight degree by the coinage of silver. The two movements together, in France and in the United States, are abundantly sufficient to account for the extraordinary fall in

prices and depression of production and trade, which afflicted the commercial world from 1872-3 to the summer of 1879. In respect to the rally of prices which then took place and continued for about a year, it may be suggested:

1. That prices always both fall and rise somewhat beyond the permanent effect of the causes which produce the fall, or rise, and that in either case there is a reaction to the extent of this excess.

2. That the continued coinage of silver in the United States, although proceeding at a very slow and closely-restricted rate, has nevertheless, to the extent of it, relieved the general monetary constriction of the commercial world, just as much as an equal increase in the production of gold would have relieved it.

3. That there have been increased issues of bank notes in several countries, and notably in France.

The following shows the changes in the coin and circulating notes of the Bank of France in two years:

	<i>Oct. 16, 1879.</i>	<i>Oct. 14, 1880.</i>	<i>Oct. 13, 1881.</i>
Coin.....	\$413,445,000	\$370,765,000	\$361,305,000
Notes.....	434,685,000	466,135,000	536,435,000

The excess of notes above the metallic reserve, is the addition made to the currency by notes. This excess increased from \$21,240,000

in October, 1879, to \$175,130,000 in October, 1881.

Upon a general review of the effect upon the world's volume of money kept at a metallic standard, of suspensions and resumptions in particular countries, and of the increase and decrease of bank and other circulating notes in specie-paying countries, it will be apparent that this volume depends upon many circumstances besides that of the enlargement or diminution of that part of the stock of the precious metals which is available for coinage. There is no such thing as what Cernuschi calls "*a mathematical value*" in a gold coin, as for example a British sovereign, as being a certain fractional part of the gold "*that might be coined*" into sovereigns out of "*the whole mass of gold in existence.*" Without doubt, the question of the value of money is always only a question of numbers, but the mathematics of the case are by no means so simple as Cernuschi supposes. Money does not anywhere consist of coins only, and inasmuch as it never happens that all commercial nations use the metals simultaneously, the proportion of the whole which is left for the nations which do use them, varies constantly and sometimes very greatly.

CHAPTER IX.

INCONVERTIBLE PAPER WILL NOT DEPRECIATE, UNTIL ISSUED IN EXCESS OF WHAT WOULD BE THE MINIMUM OF THE MONEY OF A COUNTRY, IF IT WAS METALLIC. SILVER WILL NOT DEPRECIATE RELATIVELY TO GOLD, UNTIL IT EXPELS ALL THE GOLD.

IN McLaren's *History of the Currency in England*, the following passage occurs :

Let us, then, suppose that at a time when we possessed our fair share of the gold of the world, Government paper was issued until all the gold left the country, and the market price of that metal began to exceed its mint price, and that the issue was carefully and honestly limited to this amount. This paper would, according to all authority, supply the place of the gold, and no change would be made in prices or in the distribution of property by the substitution.

The case supposed by McLaren is, that of the issue of a British Government paper money, not convertible into gold, but kept at a parity with it by a limitation of quantity. Before proceeding to other comments upon the supposed case, and upon the views taken of it by McLaren, it will be convenient, first of all, to consider in what way the issue of such a paper money would operate to expel gold from the British monetary circulation.

The connections of trade between commercial countries are so numerous and intimate that, in the case of those of them which use a money kept at a parity with the metals, the level of prices in each one of them must bear to the general level of prices in the whole of them a relation which cannot be permanently varied. This relation may oscillate, first in one direction and then in the other, but tends constantly to restore itself. This tendency, which is irresistible, arises from the necessary connection between prices and the volume of money, and from the free, international movement of the metals which are the material of metallic money. When the prices of a country on what is called a metallic basis, get too high relatively to the prices of other countries on the same basis, the imports of such country increase while its exports fall off, until the resulting adverse balance of its foreign trade causes such a drain of its gold and silver, and such a reduction of the volume of its money, as will bring down its prices to the normal level. In the reversed case of the prices of such a country being too low relatively to the prices of other countries, its exports increase while its imports fall off, until there is such an inflow of gold and silver as will restore the normal level.

The case may be supposed of a country, the

currency of which is not at the metallic standard, but in which it might nevertheless be the policy and actual practice of the governing authority to keep the paper money at an approximately steady relation to the metals. We have had for many years an example of that in Brazil, where the depreciation of the paper, or the premium on the metals, is rarely allowed to vary much from ten per cent. In countries having this species of currency, the divergencies of their volume of money and of their prices from the desired relation to money and prices abroad, are not indicated by inflows and outflows of gold and silver, but by the rise and fall in the value of their paper relatively to the value of the metals. The connection of such divergencies is not automatic, but must depend upon the voluntary act of those who are in political power, diminishing or enlarging the issues of paper, according to the nature of the divergency.

The alternating flow of gold and silver between countries on the metallic basis, as the result of rising and falling prices and of alternating balances of trade, is entirely familiar as a commercial fact of observation, and there is no obscurity in respect to the principles which govern it.

To say that in a country on the metallic

basis, prices must bear in the long run and upon the average a certain relation to the general level of prices in other countries on the same basis, is to say that the volume of money in such a country must in the long run and upon the average bear a certain relation to the total volume of money in other countries on the same basis. It is under this automatic regulation of the total average volume of money in each country on the metallic basis, and under the voluntary regulation by each country for itself of the proportion of the metals in its currency, that gold and silver diffuse themselves over that portion of the world which uses them as money, in such a way that each country so using them gets what McLaren calls, in the case of Great Britain, its "*fair share*."

The problem is somewhat complicated by the power of nations to use only one of the metals for monetary purposes, and also by the power which all commercial nations exercise, of supplementing the metals by paper money.

If Great Britain used nothing but gold as money, its "*fair share*" of that metal in monetary use would be the total amount of the British monetary currency, and necessarily such an amount as would be consistent with, and be determined by, the range of prices which is imposed upon that country by its commercial

connection with other countries. But as, in point of fact, Great Britain chooses to use about \$100,000,000 of subsidiary silver coins and about \$150,000,000 of paper having no reserve of gold behind it, the British "*fair share*" of gold for monetary use is materially reduced. It would be still further reduced if the Bank of England was permitted to issue £1 notes in addition to its present issues of paper, or if silver was admitted into the British currency in a larger proportion than it now is.

We can now understand why the gold of Great Britain would flow out, if that country, starting with all its pounds sterling in the form of gold sovereigns, should issue an equal amount of paper sovereigns, which is the case supposed by McLaren. The number of pounds sterling of all kinds which it is possible for Great Britain to hold in its currency at a parity with gold, is fixed by the condition that it must be upon the average within limits consistent with a certain average range of British prices. If paper pounds are added to a previously existing stock of gold pounds, normal in amount, or which was, as McLaren phrases it, Great Britain's "*fair share*" of the gold of the world, the excess of currency caused by such addition, must flow out, and the part of the currency which would flow out is the gold, which possesses an

international value, and not the paper, which has merely a home value and is non-exportable.

The outflow of gold in the case supposed, would not be simultaneous with the additions of paper, but would follow such additions after the lapse of a certain time. The mere addition of paper would not at once expel gold, as the thrusting of a solid body into a vessel already full of a liquid would at once expel from the vessel a cubic quantity of the liquid equal to the cubic quantity of the solid body. There is room enough in Great Britain, in the sense of cubic space, for any conceivable amount of gold and paper combined. The added paper could only effect the expulsion of gold by augmenting the total volume of the currency so as to raise prices relatively to prices in other countries. It is the adverse balance of foreign trade, resulting from such relatively enhanced prices, which would drain off the gold. If the gold disappeared simultaneously with the addition of paper, there would be no augmentation of the total volume of the currency, no rise in prices, and no change in the course of foreign trade. In short, there is no reason why gold should disappear simultaneously with the additions of paper, and no such fact has ever been observed under such circumstances.

In the case supposed by McLaren, the outflow

of gold would not only not follow the additions of paper until after the expiration of some sensible period of time, but it would never be quite equal to the additions of paper. Great Britain's "*fair share*" of money at every given time is some proportion of the total money of all the nations using a money kept at a gold standard. But this total money is increased by the substitution by any one nation of paper for the metals, as much as it would be by an equal addition of new metal to the old metallic stock. In the case supposed by McLaren, therefore, this total money of the world would be increased to the extent of the substitution of paper for gold in Great Britain, and the "*fair share*" of Great Britain would be absolutely a greater sum, although the same percentage of the total money. The new paper, if limited to the amount of gold existing at the beginning of the issue of the paper, would not be Great Britain's "*fair share*" of the total money after the issue of the paper, and in order that a "*fair share*" should be held under the changed circumstances, some portion of the old gold would still be retained in the British monetary currency.

Condé Raguét, an American writer on Banking, says :

Every emission of a paper currency in any country drives out a portion of its coin, and augments the total amount of

the currency of the world in the same manner that an additional quantity of gold and silver from the mines would do it; and hence an emission of paper money anywhere must augment the currency everywhere after time has been afforded for its distribution.

Raguet's statement of the case is more accurate than that of McLaren. In the end, an issue by any one nation of paper money kept at a parity with the metals augments the currency, and consequently the prices of all nations whose currency is on what is called a metallic basis, including, of course, the currency and prices of the particular nation issuing the paper money.

McLaren seems to give two modes of limiting the supposed British paper, so that its parity with gold should be preserved. One is, that the amount of the paper should only equal the pre-existing quantity of gold. The other is, that the further issue of paper should immediately cease upon the first appearance of a disparity in the market values of gold and paper. He apparently assumes that these two limits are the same, whereas it would require an issue of paper larger than the previous stock of gold, either to expel all the coins of that metal, or to bring on a market depreciation of the paper.

An error in an opposite direction, and of much greater magnitude, is the opinion which is carelessly held by so many persons that it

may fairly be said to be a common one, that the volume of the currency of a country on a metallic basis is enlarged to the full extent of its issues of paper. The truth is, however, that at any given time and under the actual circumstance at such time of any country on a metallic basis, in respect to population and in respect to the aggregate amount of its exchanges, its average volume of money is automatically fixed at such a point as is compatible with a scale of prices bearing a certain relation to the general range of prices in all countries on the same basis. A particular country may, by issues of paper, cause a rise in the general range of prices, including an equal rise in its own range of prices, but this rise is measured, not by the proportion of the new issues of paper to its own previously existing stock of money, but by the proportion of such issues to the total stock of money in all countries on the metallic basis. And inasmuch as, other things being equal, its volume of money must always bear a certain relation to its prices, the new issues of paper can increase this volume only in the same proportion in which the total volume of money in all countries on the metallic basis is increased, and any greater increase of its volume of money will be checked by the outflow of its coins.

Certain writers in this country, and conspicuously the late Amasa Walker, have insisted that the enlargement of the currency of a country by paper not representing coin, but kept at a parity with it by a supposed redeemability in coin, places such a country at a permanent disadvantage in its trade with other countries, by so raising prices as to diminish exports and unnaturally stimulate imports. According to their view, the protection intended to be given to various industries by American tariffs, has been in this way nullified by paper enlargements of the American currency. They entirely fail to see that while this is the effect of additions to a currency, during the time when they are being made, it is a merely temporary effect, and that in the end, as between countries on a metallic basis, an enlargement by paper of the currency of one of them becomes diffused over all of them. They might as well maintain that, as between the several countries whose currencies are at a gold standard, France is at a disadvantage in trade because it keeps its money expanded in volume by the use of \$500,000,000 of silver. In truth, the use of that amount of silver in France, as a permanent fact, is as much an enlargement of the currency of all the countries keeping their money at a gold standard, as it is of the currency of France itself. The same

principle applies to the enlargement of the British currency by the permanent issue of \$150,000,000 of bank notes having no coin reserve behind them.

It will be apparent that the power of a country on the metallic basis over the average volume of its money, will depend upon its relative importance as respects population, commerce, and exchanges. Neither Sweden nor Switzerland can sensibly affect the total volume of money in the world by substituting paper for the metals, or by returning to the use of the metals. But it is otherwise with great countries like Great Britain or France, or the United States, in either of which there is in use an important fractional part of the total money of all the countries on the metallic basis, and a still more important fractional part of the total money of all the countries which are on a metallic basis, and also keep their money at a gold standard. Either of those three nations, by substituting paper for gold, could furnish to the world a supply of that metal equal to five years' outturn of the mines at their present rate of production, and by thus largely increasing the total money held to the gold standard, either of them could largely increase its own "*fair share*" of it.

The case supposed by McLaren is that of a

Government paper money kept at a parity with gold by limitation of quantity. The actual case, which has been much more frequent in the history of the commercial world, is that of bank paper, intended to be kept always at a parity with coin by the device of (so-called) redeemability in coin, and with no check upon its quantity except the legal requirement that it shall be so redeemed. That device is, in its essential principles, a false and fraudulent one, and has proved itself in practice one of the worst scourges which has ever afflicted mankind. In Europe it has long been substantially abandoned. In this country it is still a favorite and popular policy, and the freedom of scope which has been given to it is attested by the century of recurring expansions and contractions of money, alternating rises and falls of prices, panics, crises, and bankruptcies, which have constituted the commercial history of the United States since they have been an independent nation. It is undoubtedly one of the worst systems of money which has ever been devised, and I shall hereafter discuss it somewhat fully. For the present I make upon it only the single observation, that the average quantity of redeemable paper which can be kept in circulation, is no greater than the possible quantity of irredeemable paper which can be

kept at a parity with the metals. The difficulty with redeemable paper is, that its actual quantity at any given time is, ordinarily, a very different thing from its average quantity, and that the range of the fluctuations of its actual quantity, which is often deceptively commended as its elasticity, is enormous and fatal.

We have now in existence in several countries, including our own, a system of money not dating back farther than 1874, under which, while the standard of the money is gold, the actual quantity of it is increased, not only by paper, but by silver coins kept at the desired standard by limitation of quantity. This is accomplished in Holland and in the States of the Latin Union, by retaining their old stocks of silver coins but refusing to strike any more, and in this country by such legislative and executive limitations of the monthly rate of striking silver coins as must, for ten or fifteen years to come, keep them at a market parity with gold. The effect of retaining silver coins in use, as in Holland and the States of the Latin Union, or of striking new silver coins at a closely restricted monthly rate, as in the United States, is precisely the same as the effect of adding a new paper money to a previously existing gold money. On the assumption that the valuation of silver relatively to

gold continues to be less in the market than at the mint, the amount of silver coins which can preserve a parity with gold is governed by the same laws which control the amount of inconvertible paper which can be added to a currency without depreciating such paper below gold. And the same rule applies, in the case of the addition of silver as in the case of the addition of paper, that in the end the country which makes the addition will increase the money of all other countries on the same standard, in the same proportion as it increases its own.

1. In the case of an added silver money, the currency of a country is not increased to the extent of the addition. It is of no consequence which of the two things, silver or paper, is added. The currency cannot in either case be permanently raised beyond a definite proportion of the total money of all the countries on the same standard. So long as the market valuation of silver relatively to gold is below the mint valuation, it must be as true of an addition of silver as of an addition of paper, that some portion of the addition will prove to be in the end merely a substitution for so much gold, which will flow out to the extent necessary to maintain the equilibrium of prices and money between the country adding silver

and other countries. Or, if the increase in population and exchanges, of the country adding silver, is more rapid than the average increase in other countries, so that its "*fair share*" of the total currency is an increasing percentage of the whole, which is the actual case of the United States at the present time, either the whole effect, or a part of the effect of adding silver, will be to prevent importations of gold which would have occurred if no silver was added. The more silver is added, the less gold there will be, either by an expulsion of gold, or by a curtailed import of it, although the diminution of gold will be less than the addition of silver, which, by increasing the total money of all countries, increases the "*fair share*" of the country coining the silver. Many persons declare themselves to be in favor of the coinage of both the metals in this country, but always upon the condition that the coinage of silver be so regulated as not to reduce the use of the other metal. But unless the market valuation of silver relatively to gold shall again exceed the mint valuation, as it did for many years before 1873, no method of so regulating the coinage of silver as not to expel gold to some extent, is possible, or can be conceived of, and if it were possible it ought not to be desired by those who regard an inflation of the

currency as the greatest of financial calamities. But desire it who may, or deprecate it who may, it is not practicable, without a reversal of all the laws which regulate the distribution of the metals among the nations using them, either as their sole money or as the standard of their money, for the United States to coin silver and keep it at home, and still to retain as much gold and paper at a parity with gold, as it could retain if it did not coin silver. It is no more practicable than it is to circulate paper money, whether kept at a parity with the metals, or depreciated below them, and to have as much coin in use as if the paper money did not exist.

2. France has to-day about \$500,000,000 of full-tender silver coins, kept at an actual parity with its gold coins of the same denominations. If the rulers of that country should decide to demonetize these silver coins, and throw the bullion which they contain into the sea, or exchange it for Asiatic commodities, or get rid of it in some other way, the currency of France would not be reduced by so great a sum as \$500,000,000, or by any near approximation to it. The loss of the silver might be compensated, in whole or in part, by increased issues of paper, and any loss not so compensated would fall in the end, not upon the currency of

France, but upon the aggregate currency of all the countries (including France) whose currency is kept at a parity with gold. It would fall in the first instance upon France, but as the withdrawal of the silver coins made progress, the resulting contraction of the French currency would produce a decline in French prices relatively to prices elsewhere, diminished imports into France, augmented exports from France, and finally such a flow of gold into France, as would restore the pre-existing equilibrium, but at a lower level, between the money and prices of France and the money and prices of other countries on the same standard of currency.

3. In the case of an added silver money, at whatever relation to gold might be fixed by law, it is as impossible that it should depreciate relatively to gold, as that paper should depreciate, until all the gold is expelled. In any country, with a given magnitude of population and exchanges, the value of money depends absolutely upon its quantity, and upon nothing else, but even those who have doubts of the soundness of that doctrine will not contend that the purchasing power of money can be impaired by manufacturing it out of a material which possesses value, rather than out of a material which has, substantially, no value. If a newly added inconvertible paper money,

the material of which is worthless, will not depreciate if kept within the limits of an old gold money, it is quite irrational to suppose that a newly added silver money, the material of which, at whatever standard of weight and fineness, is at any rate of some value, should depreciate so long as it is kept within the same limits. If *fiat* paper pounds sterling issued by the British Government, not in excess of the previous circulation of sovereigns at a time when such circulation was normal in amount, would be as valuable as sovereigns, which is "*according to all authority*," as McLaren correctly observes, it must certainly be true that an equal number of *fiat* silver pounds sterling, of whatever weight and fineness, would not be less valuable.

A late Secretary of the United States Treasury, Mr. Sherman, urged Congress very strenuously to limit the coinage of silver dollars to \$50,000,000 as a point beyond which there would be danger of their depreciation, and he insisted that, at any rate, \$100,000,000 was a maximum beyond which depreciation was to be looked upon as almost inevitable. Views of that kind derive no support from either experience, authority, or intelligent financial reasoning. To-day we see the parity of gold and silver coins perfectly preserved in France, where silver

constitutes nearly one-half the metallic currency, and in Holland, where the proportion of silver to gold is about two to one. The market parity of the coins would not be disturbed in either country if the proportion of silver to gold should rise to twenty to one. So long as any sensible amount of gold remained in actual use in either country, that fact would be a decisive proof that there was no premium on it sufficient to be noticed in ordinary use, because any kind of money on which there is such a premium, passes out of the market and into the hands of brokers who collect it to meet the demands (principally for export) which occasion the premium. It may seem superfluous to add that until a premium arises upon gold, there can be no depreciation of silver, comparing the two metals with each other.

The full-tender metallic money of this country is computed to be at least as great as \$600,000,000, and will increase as population and exchanges increase, unless paper money is increased. The National revenues, all of which will be paid in silver if the taxpayers find any sensible degree of economy in making use of that kind of money, exceed \$300,000,000 annually. The metallic reserves of the United States Treasury and of the banks amount to \$300,000,000, the whole of which may consist

of silver, and certainly will consist of silver if there is enough in existence, and if there is any noticeable depreciation of it as compared with gold.* In presence of such facts, the opinion is a most extraordinary one, that such depreciation can occur within any near period,

* In an address to the Bankers' Convention at Niagara, August 11, 1881, Mr. Knox, Comptroller of the Currency, estimated that the gold alone amounted, May 1, 1881, to \$520,000,000, and that of that amount \$298,000,000 was held by the United States Treasury and by the National and State banks. Since the resumption of coin payments in January, 1879, the banks have converted their cash reserves, previously held in greenbacks, into gold. They did that from their general but mistaken belief that there would soon be a premium on gold over silver, and of course over greenbacks, which are, by law, redeemable in silver at the option of the Government. But the fact that the banks preferred gold for their reserves *when they could and did obtain it without paying a premium*, has no tendency to prove that they would forego the profit of converting their reserves into silver, *if a premium upon gold shall hereafter arise*. It was, in truth, the expectation of precisely that profit which induced them to change their reserves from greenbacks to gold. If a difference arises in the market value of different kinds of lawful money, they will never pay their debts, nor keep reserves for the payment of their debts, in the kind of money which becomes the dearest. There is no rule of morality which exacts from them any such sacrifice, and it would be contrary to all the instincts and maxims of banking for them to make it. If it proves to be true, that gold is at a premium fifteen years hence, they will realize the premium by a sale, and redeem their notes in whatever lawful money may then be the cheapest. But nobody can now foresee which (if either) of the two metals will be at a premium, as compared with the other, so long in advance.

with a present stock of only \$112,000,000 and an annual coinage of only \$27,000,000.

CHAPTER X.

BANK NOTES, LIMITED ONLY BY REDEEMABILITY, INCREASE WHEN PRICES RISE AND DIMINISH WHEN PRICES FALL. THAT SYSTEM ABANDONED IN ENGLAND IN 1844. IT IS REPUDIATED EVERYWHERE IN EUROPE.

A FORM of paper money, which has been a favorite one in this country during the present century, is that of bank notes, substantially without any limit to their quantity except the duty of redeeming them in coin on demand, imposed by law upon the institutions issuing them. Legislators have, in most cases, really endeavored, in good faith, to surround the issue of such notes with conditions calculated to insure their redeemability under ordinary circumstances. These notes were nearly all of them issued by State banks prior to 1864, but they have been issued exclusively by National institutions since March 3, 1865, when Congress imposed a prohibitory tax upon State-bank notes.

I do not propose to discuss what is called

the safety of such a species of currency in the sense of its immediate or ultimate redeemability in coin, but the immeasurably more important question of the steadiness of the quantity of such a money, upon which the steadiness of prices depends. Without doubt, the solvency of banks permitted to issue notes deserves careful attention from legislators, but it is still true that all the losses which have resulted from their insolvency in this and other countries, are quite insignificant in comparison with the mischiefs caused by fluctuations in the volume of the currency furnished by them.

Lord Overstone (*Remarks on the Management of the Currency*, 1840,) says:

Security for the ultimate solvency of those who issue paper money is confounded with, and conceived to be the same thing as, security for the due regulation of the amount of that paper money—a fallacy very prevalent, and from which the most erroneous views arise. Insolvency on the part of an issuer affects the specific holders of the notes of that issuer, and those only; but improper fluctuation in the amount of the paper issues affects the whole community in common; they disturb to a greater or less extent the steadiness of prices and the regular movements of trade; and they tend to derange the equilibrium of exchange with other countries. The former evil is local and partial; the latter is general, affecting the whole country and every individual in it.

Under the old *regime* of the State banks, the States either granted special charters for note-issuing banks to substantially all applicants, or established by general law free-banking systems,

as in the State of New York, under which anybody could inaugurate banking with the privilege of note issues, on the condition of depositing in some designated official custody certain specified securities, by way of pledge for the redemption of their circulation. In most cases of State banking, under either special charters or general laws, the maximum limit of the circulation of a bank was some proportion of its capital, but this limit was ordinarily so much beyond the amount that it could actually issue and keep redeemable, that it was really no limit. In no instance did the States impose any limit upon the aggregate issues of their banks, and, as in most cases, those institutions acted independently of each other, it would have been difficult to enforce an aggregate limitation of that kind. But there is no reason to believe that any State would have imposed such a limitation, however practicable it might have been to have devised one.

Under the existing *regime* of the National banks \$300,000,000 was at first (1864) fixed as the maximum limit of their aggregate circulation. The maximum was increased to \$354,000,000 by an Act passed in 1870, but by the Resumption Act of 1875 this limit was repealed. Since that date, therefore, the only legal limit has been that it cannot exceed ninety per cent. of

the bonded debt of the United States. So far, this legal limit has been really no limit, as it has always been greatly in excess of the amount of circulation which the National banks have been able to maintain. It is no more a limit than it would be to fix as the maximum punishment of a crime, an imprisonment for one hundred years, or any other term beyond the expectation of human life.*

In short, the theory of the bank-note system of this country has always been that the volume of paper money need be neither an absolutely fixed amount, nor an amount increasing regularly *pari passu* with population or wealth, but an elastic amount, varying with the capacity of the banks to keep notes in circulation and redeemable, it being always the interest of the

* A practical limitation upon the aggregate of National-bank notes has arisen lately from the reduction of the amount of outstanding United States bonds, the high prices such bonds have reached in the markets, and the small returns which they yield to investors in them. The course of events which has led to these results was not anticipated by the originators of the National bank system, and has for the time being fortunately diminished the (so-called) elasticity of the currency furnished by it. But a change in this course of events is always possible and more probable than most persons suppose. To say nothing of new wars, which would create new debts, the influences hostile to the further reduction of the present debt are ramified and powerful, and experience shows that when a nation can be persuaded to stop reducing a debt, the next step almost certain to be taken is to expand it.

banks themselves to keep in circulation the greatest amount possible, inasmuch as such a circulation is nothing else than the profitable exchange of their own non-interest-bearing paper for the interest-bearing paper of their customers.*

On a first view an elastic money is an absurdity as manifest and egregious as an elastic yard-stick, or an elastic bushel measure. If the American people do not now see how intrinsically and hopelessly fatal such a money is, it is because a long habit has accustomed them to it, and because their instructors in finance have been chiefly persons in the interest of the powerful classes which specially profit by the system of bank-note issues.

These instructors teach that money is sound, not when its volume maintains such a steady proportion to population and exchanges as will preserve steadiness in prices, and make time contracts to pay money signify the same thing when they mature as when they are entered into, but when its volume contracts and expands

* Banks must be constantly desirous of increasing their loans by issuing their own credit in the shape of circulation and deposits. The more they can get out the larger the income. This is the *motive power* that insures the constant expansion of a mixed currency to its highest possible limit. The banks will always increase their indebtedness when they can, and only contract it when they must.—Amasa Walker's *Science of Wealth*, Book III., Chapter IV.

in obedience to what they call the wants of trade. The regulation of the volume of the paper part of a currency which they commend is, that it shall be such a quantity of bank notes as can be kept floating in the channels of circulation. This quantity is controlled, of course, by the greater or less rapidity with which the notes already issued by the banks return to them for redemption. They have at all times the motive of their own profit to keep out the greatest amount of non-bearing interest notes which will remain in circulation, and it is this maximum possible amount which, according to the doctrines most in vogue in this country, is always the proper amount. The teachers of these doctrines admit that it is a fluctuating amount, but they say that these fluctuations are always in the proper direction, because they are determined automatically by the conditions and demands of trade, and are undisturbed by the interference of the political authorities.

It would seem to be obvious, however, that the conditions of trade must render it possible to float an increasing amount of bank notes when prices are rising, and when the production and exchanges of merchandise are stimulated and multiplied by an advance in prices, and also that, as the amount of bank notes

actually floated is always the maximum amount which can be floated, the inherent tendency of bank notes at such times must be to expand indefinitely in amount, and to correspondingly inflate prices and business indefinitely, until the inflation is ended either by an adverse balance of foreign trade, or by a panic originating in home causes. And it would seem to be equally obvious that when prices are declining, and when production and exchanges are checked, as they always are, and necessarily must be, by declining prices, the quantity of bank notes which can be maintained in circulation will fall off, and that the resulting diminution in the volume of the money of a country will still further depress prices. As in the opposite case of an expansion of prices and of the quantity of bank notes in circulation, the tendency of a decline of prices must be to still further diminish the quantity of bank notes in circulation, and this process must go on indefinitely until it is ended by such a favorable balance of trade as will revive prices by importations of gold and silver, and by reviving prices render it again possible to increase the quantity of bank notes, which will float in the circulation and not be presented for redemption.

Lord Overstone, in the work just quoted from and which was published four years before

Peel's Act of 1844 radically changed the previously existing system, notes as one of the "*three circumstances*" responsible for "*the improper fluctuations in the amount of the paper currency of England,*" the following :

It is issued in the form of advances for commercial purposes. A rise of prices is, therefore, accompanied by an increase of issues, and a fall of prices by a diminution of issues.

McCulloch, in his edition of Smith's *Wealth of Nations*, says :

So long as any individual or set of individuals may usurp the royal prerogative and issue paper without let or hindrance, so long will it be issued in excess, in periods when prices are rising and confidence high ; and be suddenly withdrawn when prices are falling and confidence shaken.

What thus seems to be the natural course of the fluctuations of a bank-note currency, has invariably been witnessed in the experience of the countries which have tried it. Without doubt, these fluctuations are automatically determined by the conditions of trade, of which the most material of all is the fact of the rising or falling of the general range of prices. Governments do not directly cause them, although they are justly responsible for the necessary effects of any system which they establish. Nor have the banks themselves in this country caused these fluctuations by any volition of their own, either under the old system of State banks, or

under the present system of National banks. A concert of action among institutions so numerous and scattered, to increase or diminish their aggregate note circulation, is a chimerical idea. Each one follows for itself the law of its being, which is to maintain its own note circulation at the largest possible amount. But the mischiefs of fluctuations in the volume of bank notes are none the less because they result from the conditions of trade. Governments can no more escape their responsibility in respect to the vital object of steadiness in the volume of money, by remitting its magnitude to the capricious chances and changes of prices and commerce, than navigators can escape responsibility for the ships, cargoes, and passengers intrusted to their care, by turning them over to the automatic control of the winds and waves.

Of writers in this country the late Amasa Walker, of Massachusetts, has been, during this generation almost alone in pointing out the inherently vicious character of a bank-note circulation, which he describes as a "*mixed currency*." He says truly of it, that it would be better if its movements were the result of accident, because they might then be sometimes in the right direction, but that from the nature of the causes which control its fluctuations, they are always in the wrong direction. On that point

he observes (*Science of Wealth*, Edition of 1874, Book 3, Chapter 6):

The more that is issued of a mixed currency, the more will be wanted. The supply does not satisfy the demand—it excites it. Like an unnatural stimulus taken into the human system, it creates an increasing desire for more; and the more it is gratified the more insatiable are its cravings.

There are two reasons for this: one, that as the currency is expanded prices are raised correspondingly, and more currency is demanded to effect the same exchanges; the other, that the speculation inevitably following the rise of prices leads to an enormous extension and repetition of indebtedness, which requires for its discharge a greatly increased amount of the circulating medium.* Thus, by the action and interaction of these causes the demand for the issue of this kind of currency is certain to be greatest when it is already redundant. . . . The cause that limits the expansion and finally produces contraction, is the liability of the notes to be presented for money.

As Mr. Walker observes, the “*most common*” cause of the presentation of bank notes for redemption is “*an adverse balance of trade*,” and he might have added that this cause will be sure to operate sooner or later, if it is not anticipated by some panic originating from “*a political convulsion, a failure of some large trading or banking company*,” or other occurrence. An “*ad-*

* By way of contrast, the reader can look at the “*perilous nonsense*” of the following utterance of one of the speakers (E. Atkinson) at the 1880 session of the American Bankers’ Association:

“The only elasticity that is of any value or service, is the ebb and flow of those notes (National-bank notes) from and to the banks, *in unison with the value of commodities dealt in by those who need the notes.*”

verse balance of trade" cannot be long avoided as prices advance under an increasing volume of bank notes. Prices and the volume of money in every country on the metallic basis must in the long run preserve a certain relation to the prices and volume of money in other countries on the same basis. To this complexion it must come at last. As prices go above the prescribed level, imports increase and exports diminish, until coin is called for to settle balances with the foreigner. Then comes a demand for the redemption of bank notes, and the volume of them possible to be maintained in circulation is diminished from two causes:

1. The theory of a bank-note currency is to maintain a large proportion of paper to the coin held in reserve for its redemption, and the profit of such a currency to its issuers depends upon the magnitude of the proportion, which has varied in this country from three to ten of paper to one of coin. Whatever proportion of coin is at any period regarded as safe, according to the current financial ideas and teachings, the banks cannot permit their coin to fall below it without the risk of a panic, and as their coin is drawn away they must reduce their paper from three to ten times as much. This reduction is effected only in a small degree by redemptions, but principally by receiving their

own notes in payment of debts due to them and not re-issuing them for the time being.*

2. As prices fall after the contraction begins, with the unavoidable accompaniment of curtailed production and exchanges, the capacity of the country to absorb and float bank notes diminishes.

And, as already observed, this process of shrinking in prices and in the volume of money would go on indefinitely, if it was not finally arrested and reversed, by a depression in prices so far below the level prescribed by the foreign commercial connections of the country, as to induce a favorable balance of trade and importations of coin.

The strange delusion of an elastic money to consist of bank notes, promising but not representing coin, seems to have been mainly peculiar to this country. It never prevailed, either long or extensively, in Europe, and has been abandoned there by the most enlightened nations as wholly unsound for more than a generation. That such a system of money should have been

* If ten millions are to be paid abroad, it must be taken from the specie of the banks; the basis of the currency is so much diminished and the circulation must be curtailed accordingly. If the proportion of specie is as one to five of notes, then the export of ten millions abroad must cause a contraction of fifty million dollars at home. — Walker's *Science of Wealth*.

so long a favorite one in the United States is extraordinary, not merely because it is really the worst system ever devised by perverted human ingenuity, but because it so completely neglects and repudiates the most obvious and universally accepted requirement of a sound money, that it should be, as far as possible, steady in volume. Indeed, the merit claimed for bank-note money is the unsteadiness of its volume, or, in the phraseology of its supporters, its elasticity.

Walker (*Science of Wealth*) says :

The Bank of England, the parent of all mixed-currency institutions throughout the world, was established in 1694; but its operations were so limited and its influence so partially felt during the first century of its existence, that the character of the currency it issued was hardly appreciated.

The first century of the existence of the Bank of England ended in its suspension in 1797, which continued twenty-four years, and it was only in the short interval between 1821 and 1844, that Great Britain has had any experience on an important scale of a bank-note currency, regulated in amount by the capacity of the Bank of England, and of the numerous other banks in the United Kingdom authorized to make paper issues, to keep such paper redeemable. The result of this experience was the entire abandonment of that system, and the establishment by the Bank Act of 1844 of what was and

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is known in British financial discussions as Sir Robert Peel's "*currency principle*," that the volume of British money shall fluctuate only with the increase or decrease of gold coin. The Bank Act of 1844, which he originated, admits of bank notes, but so regulated that changes in them do not affect the volume of money. The Act accomplishes this, by imposing upon what is known as "*the fixed issue*" of the Bank of England and of the other banks in England, Scotland and Ireland, authorized to issue notes, the total aggregate limit of about £30,000,000, or rather less than \$150,000,000. This was assumed as an amount of bank notes which would never come in for redemption, and no coin is either kept, or required to be kept, as a reserve to protect it. In point of fact, the bank notes outstanding in Great Britain have never yet fallen to this very low permanent minimum prescribed by Peel's Act, and it is difficult to conceive that they ever can. Beyond that minimum, the Act absolutely prohibits the issue of a single note unless an equal amount of gold is kept in reserve. Of course, any additional notes issued under that restriction are merely the representatives of actual coin, and do not vary the volume of British money any more than the certificates of gold and silver deposited in the United States Treasury vary the volume of American money.

The British discussions, in and out of Parliament, in 1844 and since, have been animated and thorough. Several subsequent Parliamentary Commissions have taken the opinions upon it of merchants, of bankers, and of persons not merchants or bankers, who have made the currency a subject of scientific study. The general result to this time has been that British support of Peel's "*currency principle*" has not been shaken, and that the system which it superseded, of a volume of bank notes fluctuating with the amount possible to be kept in circulation under the conditions and demands of trade for the time being, is still regarded by most Englishmen as "*a grand system of insidious swindling*," as Mr. Harding of the Bank of England, writing under the *nom de plume* of "Hardcastle," once pronounced it to be.

In the new German Empire the British "*currency principle*" has been almost exactly copied. The differences are the two following :

1. In Great Britain the fixed issue of bank notes tends in some small degree and very slowly to diminish, under a provision that when the fixed authorized issue of any bank lapses by its insolvency or its going out of existence from any cause, the Bank of England falls heir, not to the whole of such lapsed issue, but to only two-thirds of it. In Germany the Imperial

Bank falls heir to the total fixed issue of any provincial bank which may lapse.

2. The German prohibition of any issue in excess of the fixed issue, except such as is bottomed upon an equal amount of specie, is not absolute, but is in the shape of a provision that any excess of issue without an equal amount of specie, shall pay a tax to the Government of five per cent. per annum. While this permits an excess of issue under extraordinary circumstances, it is manifestly sufficient to keep the excess within very narrow limits as to amount and duration. It is a safety valve for extreme cases, such as have been three times (in 1847, 1857, and 1866) met in Great Britain by a ministerial suspension of the Bank Act.

The fixed issue of bank notes in Germany is 385,000,000 marks, or \$96,250,000, which is supplemented by notes of the Empire, which have taken the place of the notes of the several States constituting the Empire. These Imperial notes amounted in 1876 to 174,800,000 marks, or \$43,700,000, but are to be gradually reduced until 1890, when their amount will be 120,000,000 marks, or \$30,000,000. This last sum happens to be precisely equal to the war fund kept constantly in metal in the Spandau Tower, so that after 1890 the Imperial notes will actually represent coin, mark for mark.

In Austro-Hungary, the Imperial Bank is the only bank allowed to issue notes, and is required to cover fully with coin all notes in excess of 200,000,000 florins, or about \$96,000,000. In addition there are Imperial notes (the equivalent of such notes as the American greenbacks were before the resumption of 1879), of which the permissible maximum is 312,000,000 florins, or \$149,760,000. The Empire has also an authority, which it partially exercises, to issue, on the basis of mortgages which it holds on alienated State domains, notes to the amount of 100,000,000 florins. The actual aggregate of Imperial notes of both kinds outstanding October 1, 1876, was 354,000,000 florins, or \$169,920,000. (See U. S. Monetary Report, pages 103 and 104 of Appendix to the first volume.) About the 1st of September, 1881, the aggregate was reduced to 328,000,000 florins, by the substitution of silver florins for one-florin notes.

In Italy, by a law passed in 1868, the aggregate note circulation of the banks is fixed at 700,000,000 *lire*, or \$133,000,000.

In Denmark, the National Bank of Copenhagen is authorized to issue notes, protected by securities and by a reserve of specie in the proportion of not less than 3 to 8 of paper. But the more material restriction is, that in no case is the excess of paper above the coin to

go beyond the fixed sum of 30,000,000 Danish crowns, or \$8,040,000. (See letter of March 15, 1880, from the Danish Minister of Finance to the U. S. *Charge d'Affaires*.)

In fine, in no important country in Europe do we find anything approximating the elastic bank-note system which has been so long the *ignis fatuus* of American finance. Without going further into detail, it will be sufficient to observe in respect to France, where the Bank of France is alone authorized to issue circulating notes, that although it is in its proprietorship a private corporation, it is under Government control in all matters affecting the currency, and that thus far, except under the stress of war, this control has been exercised in the direction of making its notes very nearly the actual representatives of specie. At any rate, no such theory has ever been accepted or acted upon in France as that of leaving the volume of the outstanding notes of the Bank of France to fluctuate up and down, as the maximum of the notes possible to be kept in circulation and redeemable may vary with the changing conditions and demands of trade.

CHAPTER XI.

DISASTROUS FLUCTUATIONS IN PRICES CAUSED BY REDEEMABLE BANK NOTES. ILLUSTRATIONS FROM THE HISTORY OF THE UNITED STATES.

BEFORE exhibiting and commenting upon certain instances which have occurred in the history of this country, of a substantial correspondence in the time of happening between a rise of prices and an increase of bank-note circulation, and between a fall in prices and a diminution of bank-note circulation, it is proper to be said that these instances are referred to merely to illustrate the subject, and not because the necessary tendency of prices to enlarge with an enlarging volume of money, and to shrink with a shrinking volume of money, can be made any more indisputable by examples. Of all the brilliant phrases of Lord Bolingbroke, none has been more quoted and admired than his saying that history is philosophy teaching by examples. Nevertheless, its brilliancy is its only merit. There is no solid or useful wisdom in it. Political and economical philosophy rest upon a substantial foundation, when they rest upon

the power of the human mind to comprehend the essential nature and connection of things. If their maxims are supported only by the examples of history, endless disputes arise as to what are historical facts, and it rarely turns out that the recorded facts which may seem to overthrow any given maxim are not quite as numerous as those which establish it. While it is true, in respect both to the rules of statesmanship and to the laws which govern the relation between money and prices, that all facts which are fully and exactly known and rightly reasoned upon, must always teach the same lesson, there is a constant danger of being misled by them, if any of the attending and qualifying circumstances are unknown, or overlooked.

The rule that prices depend upon the volume of money, when stated correctly, is always with the qualification, that other things are equal. When the money in use is of an elastic description, increasing prices have a tendency to absorb more of it and to cause more of it to exist. An increasing volume of money also tends to raise prices. In both cases, however, these tendencies may be temporarily counteracted, in whole or in part, by other conditions. From the nature of the case, it must always take some time for the volume of money and the general range of prices to affect each other, and

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the length of time so taken varies with circumstances. When other causes, such as the condition of foreign markets or a general buoyancy of the public mind, predispose to an advance of prices, such an advance follows quickly upon new supplies of money. On the contrary, at periods of anxiety, depression, and especially of panic, the utmost immediate effect of enlarging the volume of money is to check the fall in prices. In these and other ways it happens, that the enlarging, or diminishing movements of money and prices, are never exactly simultaneous, and may often be separated by such intervals of time as to render it possible to controvert the existence of the relation of cause and effect between them.

The currency discussions in England, which preceded the passage of the Bank Act of 1844, left as a legacy (*luctuosa hæreditas*) to students in such subjects, an enormous mass of books, pamphlets, and speeches, in which the main point of debate was the connection, affirmed on one side and denied on the other, between fluctuations in the note issues of British banks and fluctuations of British prices. As a question merely of fact, those who denied such a connection were always able to place their denial upon plausible grounds, from the lack of exact simultaneousness between the increase or de-

crease of bank notes and the rise and fall of prices, and by maintaining in respect to every movement of prices, that it was wholly the result of other influences than that of a change in the volume of bank notes, as doubtless it always really was in part. The most conspicuous of the writers on that side was Tooke, whose work on prices is still much read and quoted. The admirable vigor of his constitution enabled him to keep up a mischievous activity until an octogenarian age, and he was never at a loss for facts and figures tending to show that every given fluctuation in prices might be accounted for without reference to fluctuations in the bank-note currency. Tooke and the men of his school were beaten at last, not so much by what Bolingbroke called "*examples*," as by the logic of the case, which was invincibly against them from the first. Mankind, so long as they possess the capacity to reason, can never be made to doubt that the value of money must permanently depend upon the play of the forces of demand and supply, and that the demand being assumed to be the same, it will be more valuable when there is less of it, and less valuable when there is more of it.

In the case of England, where no bank notes below five pounds, or twenty-five dollars, are in use, the currency is largely metallic, so that

the changes in the volume of bank notes which occurred prior to the Bank Act of 1844, affected the total volume of money, which influences prices, much less than the changes in the volume of bank notes have affected the total volume of money in this country, where such notes constituted, prior to the Civil War, nearly the whole money in circulation.

Lord Overstone (*Thoughts on the separation of the departments of the Bank of England*, 1840) says :

Contraction of circulation acts—first upon the rate of interest, then upon the price of securities, then upon the market for shares—at a later period upon the tendency to enter into speculation in commodities—and lastly, upon prices generally. These effects may be retarded or accelerated by other circumstances; possibly they may not occur precisely in the manner here stated; but this is something like the order of succession in which the effects of contraction are gradually developed.

The case is similar, when the action is in the opposite direction; that is, when the circulation is increasing.

Interest is first affected; speculation in commodities and prices are the last to be affected.

The order of time in which the consequences of a contraction of the currency develop themselves under ordinary circumstances may be such as Lord Overstone states it to be. But if he intended to suggest that there is any such connection between high current rates of interest and low prices of commodities, as there is between high current rates of interest and low

prices of interest-bearing bonds and shares, he was quite mistaken. The market value of a security, paying a fixed rate of income, depends directly upon the prevailing rate of interest. Such a security goes up as interest falls, and goes down as interest rises. Between the current rate of interest and the prices of commodities there is no direct and necessary relation. It is true that in the first stages of a contraction of the currency, the two things, a rise in interest and a fall in the prices of commodities, co-exist. But in the last stages of a contraction of the currency, while the prices of commodities will have fallen still lower, interest will not only have lost the rise which it experienced in the first stages of the contraction, but will have reached an extreme and abnormal degree of depression. All experience shows that this is the final effect of a contraction. It must be so, because a long-continued shrinking of the volume of money discourages productive enterprise by steadily shrinking prices. At the end of such a movement of money, we find co-existing, not low prices of commodities and low prices of securities yielding a fixed income, but low prices of commodities and high prices of such securities.

In fact, one of the causes of the increasing rates of interest at the beginning of a contrac-

tion of money, is the effort of the holders of property of all kinds to stave off the necessity of sales, by the use of their credit. As men are apt to believe what they desire, the majority of them suppose in such cases that the markets will soon rally, and that their interest lies, rather in borrowing money to enable them to hold their property, than in accepting the prices currently obtainable for it.

In the Report (1877) of the United States Monetary Commission, pages 37 and 38, the following observations are made:

The mistake is often made, that prices are not controlled by the volume of money, because they have neither risen nor fallen concurrently with, nor in exact proportion to, the increase or decrease of such volume. . . . The entire property interests of a country are united in maintaining, and if possible, in advancing, the price of property, and in resisting to the uttermost any decline. A temporary maintenance of nominal prices, even in the presence of a shrinking volume of money, is especially practicable with imperishable property like real estate. When money begins to become scarce, by reason of a shrinkage in its volume, the first effect upon real estate is found to be, not a decline of its nominal price, but a diminution in the number of transactions. Market reports quote real estate "*dull; few sales, but prices firm.*" . . . Nominal prices are unnaturally held up for a short period by the tenacity of owners who refuse to sell at lower figures.

Among common, popular sayings, in respect to the effects of a contraction of money, one is, that labor is the first thing to fall and the last to rise and the other is, that real estate is

the last thing, either to fall or rise. The observations of the United States Monetary Commission show why it is, that labor yields first, and real estate last, to the depressing influence upon prices of a contraction of money. Real estate, more readily than anything else, can be kept out of the market by resort to credit. The labor of the persons, too numerous in all countries, who possess nothing but their capacity to work, is forced upon the market by the daily necessity for food, raiment and shelter, with more precipitancy than the most perishable commodity. As to which is the last thing to rise, whether labor or real estate, popular ideas seem to be discordant and contradictory. But it is at any rate plain, that labor cannot be the first thing to rise. An improvement of wages must be preceded by such an improvement of the prices of commodities as will revive productive enterprises and thereby augment the demand for labor.

At the end of the annual special report for the United States Treasury Department for 1863, upon the condition of the State banks, will be found a tabular statement of their circulation, deposits and specie, on, or as near as possible to, the first day of January in each year from 1834 to 1863, both inclusive. The statement illustrates the enormous range of the fluctuations

in the volume of a redeemable bank-note currency, which was restrained within no legally fixed aggregate limits, and which was therefore always maintained at the maximum possible to be kept in circulation. This maximum, being determined by the current range of prices and by the conditions and demands of trade, was an increasing amount when prices were rising and business was active, and a diminishing amount when prices were falling and business was depressed. In that way, the bank-note currency increased precisely when an increase was injurious, and diminished when a diminution was injurious, and thus aggravated and intensified whatever happened to be the fluctuation of prices at any given time.

The Treasury report referred to gives for each year the computed population of the United States, and the *per capita* amount of the aggregate deposits and circulation of the banks, but not the *per capita* amount of the bank circulation by itself, which is, however, the most material of all the circumstances in the case. I have therefore made the calculation of this last amount in the following table, which is in other respects transcribed from the Treasury report:

<i>On or near January 1.</i>	<i>Circulation.</i>	<i>Deposits.</i>	<i>Specie.</i>	<i>Deposits and circu- lation per capita.</i>	<i>Circu- lation per capita.</i>
1834 .	\$ 94,840,000 .	\$ 75,667,000 .	— .	\$ 11.83 .	\$ 6.58
1835 .	103,692,000 .	83,081,000 .	\$ 43,937,000 .	12.61 .	7.00
1836 .	140,301,000 .	115,104,000 .	40,019,000 .	16.77 .	9.15
1837 .	149,186,000 .	127,397,000 .	37,915,000 .	17.66 .	9.52
1838 .	116,139,000 .	84,691,000 .	35,184,000 .	12.46 .	7.21
1839 .	135,171,000 .	90,240,000 .	45,132,000 .	13.59 .	8.15
1840 .	107,000,000 .	75,696,000 .	33,105,000 .	10.70 .	6.26
1841 .	107,290,000 .	64,890,000 .	34,813,000 .	9.79 .	6.10
1842 .	83,734,000 .	62,408,000 .	28,440,000 .	8.07 .	4.62
1843 .	58,564,000 .	56,168,000 .	33,000,000 .	6.15 .	3.14
1844 .	75,168,000 .	84,550,000 .	49,898,000 .	8.31 .	3.91
1845 .	89,608,000 .	88,021,000 .	44,241,000 .	8.96 .	4.52
1846 .	105,552,000 .	96,913,000 .	42,012,000 .	9.90 .	5.11
1847 .	105,500,000 .	91,812,000 .	35,132,000 .	9.35 .	5.00
1848 .	128,506,000 .	103,227,000 .	46,300,000 .	10.65 .	5.90
1849 .	114,740,000 .	91,182,000 .	43,620,000 .	9.17 .	5.11
1850 .	131,367,000 .	109,586,000 .	45,380,000 .	10.39 .	5.66
1851 .	155,165,000 .	128,957,000 .	48,670,000 .	11.87 .	6.48
1852 .	— .	— .	— .	13.31 .	—
1853 .	146,072,000 .	145,553,000 .	47,338,000 .	13.66 .	5.71
1854 .	204,689,000 .	188,188,000 .	59,410,000 .	14.97 .	7.80
1855 .	187,000,000 .	190,400,000 .	53,944,000 .	13.95 .	6.92
1856 .	195,747,000 .	212,706,000 .	59,314,000 .	14.66 .	7.03
1857 .	214,779,000 .	230,351,000 .	58,300,000 .	15.52 .	7.48
1858 .	155,208,000 .	185,932,000 .	74,412,000 .	11.56 .	5.26
1859 .	193,307,000 .	259,568,000 .	104,537,000 .	14.91 .	6.37
1860 .	207,102,000 .	253,802,000 .	83,594,000 .	14.66 .	6.59
1861 .	202,005,000 .	257,229,000 .	87,674,000 .	14.13 .	6.21

For some unexplained reason, the only return for the year 1852, given in the treasury report, is the amount *per capita* of the aggregate deposits and circulation.

In none of the twenty-eight years covered by the above tables was the bank circulation en-

larged, either in any important degree or for any considerable length of time, by suspensions of specie payments. The suspension of the New York banks on the tenth of May, 1837, was followed at once by that of all the banks in the country, but as it was the policy of the New York banks to resume within a year, as they in fact did, they proceeded at once to contract their loans and issues rather than to expand them, so that the ordinary consequences of a general bank suspension were not experienced in that instance. There was another suspension, October, 1839, led by Biddle's insolvent United States Bank, then operating under a State charter, which temporarily involved all the banks in Pennsylvania, and south and west of it, but there was no important resulting expansion of paper circulation, inasmuch as the New York and New England banks adhered to specie redemption. In 1857 there was another suspension, originating in New York, and therefore necessarily general, but it lasted for only a few weeks, and, like the suspension of 1837, was followed rather by a contraction than an expansion of paper issues.

In respect to the above tables of bank circulation from 1834 to 1881, the following observations are submitted to the consideration of the reader :

1. According to the view of many American authorities, there is no difference in real effect upon the volume of currency, between deposits in banks and their note issues; the one being a demand debit against them inscribed upon their books, and the other being a demand debit against them evidenced by their notes, and the deposits being claimed to be as available as currently-accepted moneys as the notes are. This view is, however, most commonly, and ought always to be, presented, subject to the exception of that always considerable part of the deposits in banks, which the depositors are practically restrained from using, whatever their strictly-legal rights may be. The larger part of deposits in banks result from the discounts* they make, and as banks have the choice of the cus-

* The late Amasa Walker was a practical banker, as well as writer upon financial subjects. He says (*Science of Wealth*, Part 2, Chapter 5):

"The customer may get his own notes, or the notes of others, discounted at the bank, and the amount is passed to his credit; and this last is the origin of the *greater part* of all deposits.

"Permanent, or compulsory deposits, made by business men wishing for bank accommodations, in order to secure larger loans, are not used at all by those who make them. They are made with the tacit understanding that they are to remain in the bank, and not be drawn upon. They are made to secure favors from the bank, and in order to show a 'good account.' Banks are conducted wholly with reference to profit, and the most profitable accounts will secure the most liberal discounts."

tomers whose paper they will discount, they naturally discount more freely to those who will agree, either expressly or tacitly, to leave in permanent deposit the greatest proportion of the proceeds of the discounted paper. The best English authorities do not treat bank deposits, actually as well as legally subject to demand calls, as having the same effect on the currency as bank notes. In respect to the points which I now propose to discuss, it is not important to determine what theoretical view upon that subject is the right one. In point of fact, the fluctuations in the *per capita* amount of the aggregate of the deposits and circulation of banks, issuing notes without legal limit, always correspond very closely, although not exactly, with the fluctuations in the *per capita* amount of their circulation. They did so during the twenty-eight years covered by the tables just given. They must commonly do so, from the nature of the case. The greater the abundance of money, the larger the deposits of it in banks must tend to be.

2. During the twenty-eight years from 1834 to 1861, prices of commodities rose or fell as the *per capita* circulation of bank notes was expanded or contracted. When these note expansions and contractions were great and sudden, the fluctuations in the commercial markets had a

very wide range, at one time inciting intense speculative activities, and at another time bankrupting or impoverishing everybody engaged in agricultural and industrial enterprises, and everybody, whether engaged in industrial enterprises or not, who became involved in time contracts to pay money. Passing over, for the present, the questions whether these expansions and contractions of the *per capita* volume of bank notes were the cause or the consequence, or in some proportion both the cause and consequence, of a rise and fall of the prices of commodities, it is easy to show that the two things were, as a matter of fact, substantially simultaneous.

The most extreme fluctuation in the *per capita* volume of bank notes during the twenty-eight years was between the expansion known as that of 1835-6, and indicated in the tables given above by the figures of the circulation on the first of January in the years 1836 and 1837, and the contraction which reached its lowest point six and seven years later, and which is indicated by the figures of the circulation on the first of January in the years 1843 and 1844. It is, without doubt, greater than any fluctuation which ever occurred at any period, or in any country, in the volume of bank notes both legally and actually redeemable in coin. The circulation, which in the two years of the great-

est expansion averaged \$9.34 *per capita*, fell in the two years of the greatest contraction to an average of \$3.53 *per capita*. Comparing the single year of the greatest expansion with the single year of the greatest contraction, there was a fall in circulation *per capita* from \$9.52 to \$3.14, or slightly more than two-thirds. And it must not be forgotten that at those dates there was very little coin outside of bank vaults, and that this shrinkage of two-thirds in the volume of bank notes indicated very nearly as great a shrinkage in the total volume of money in the country.

In respect to prices in the New York market from 1834 to 1859, they were, with brief and unimportant exceptions, what are called specie prices. Of the two suspensions by the New York banks during that period, the first one, occurring May 10, 1837, lasted only a year, and the banks, as already noticed, commenced at once to contract their discounts, so as to keep their currency close to specie, preparatory to resumption at the end of the year. The suspension of 1857 was an affair of weeks, and attended with no depreciation of currency relatively to the metals.

In the Treasury report of 1863 tables are given of the average wholesale prices in the New York market of ten articles (coffee, leather,

molasses, mess pork, cheese, rice, salt, sugar, tobacco, and wool), from 1834 to 1859, both inclusive. In the following tables I have given, in connection with the figures of the average prices for each year, the circulation *per capita* on the first day of January of the same year : *

<i>Year.</i>	<i>Average of prices.</i>	<i>Circulation per capita January 1.</i>		<i>Year.</i>	<i>Average of prices.</i>	<i>Circulation per capita January 1.</i>
1834	\$19.13¾	..	\$6.58	....	1847	\$20.82¼ .. \$5.00
1835	22.81¾	..	7.00	....	1848	16.53½ .. 5.90
1836	29.46½	..	9.15	....	1849	16.45 .. 5.11
1837	28.40½	..	9.52	....	1850	16.20½ .. 5.66
1838	28.35¾	..	7.21	....	1851	19.42½ .. 6.48
1839	22.21¾	..	8.15	....	1852	21.42½ No returns.
1840	20.73¼	..	6.26	....	1853	22.47¾ .. 5.71
1841	17.93¾	..	6.10	....	1854	20.84 .. 7.80
1842	13.80¼	..	4.62	....	1855	22.78¾ .. 6.92
1843	14.82½	..	3.14	....	1856	25.07½ .. 7.03
1844	14.65½	..	3.91	....	1857	25.13½ .. 7.48
1845	18.56½	..	4.52	....	1858	21.92 .. 5.26
1846	16.69	..	5.11	....	1859	22.11½ .. 6.37

The average price of ten articles, as given above, from the Treasury Report of 1863, indicates a fall from \$28.40½ in 1837 to an average of \$14.36 during the three years 1842, 1843,

* The averages of prices, as given from the Treasury Report of 1863, are obtained in the way which, until recently, has been most usual with statisticians. The prices of articles, following the units of quantity by which they are commonly sold, as tons, pounds, yards, bushels, etc., are added up for the different years to be compared, and the results are divided by the number of the articles. The effect of that method is to give to each article an equal influence in determining fluctuations in prices, whereas there is a great difference in the aggregate values of the articles produced or

and 1844, and fixes 1842 as the year when the absolutely lowest point ($\$13.80\frac{1}{4}$) was reached.

In the New York *Public* of May 18, 1876, there is a statement of the average wholesale prices in New York of certain leading articles, which makes a fall from May 1, 1837, to May 1, 1843, from 126 to 78, or 38.10 per cent. The *Public* of a later date (June 27, 1878) gives figures showing that the same quantities of twenty important articles could have been bought at wholesale in New York for \$1,952 on the 1st of May, 1837, and for \$1,206 on the 1st of May, 1843, which makes a fall of 38.22 per cent., instead of the fall of about fifty per cent. which is deducible from the figures of the purchased in different countries. It gives an equal influence, for example, to a fluctuation in the price per pound of beeswax, as to a fluctuation in the price per pound of cotton. In 1876, Mr. Grosvenor, an ingenious American financial writer, and for several years past editor of the New York *Public*, introduced the principle of deducing the average of prices, not from the prices of quantities of articles corresponding with the units of measure or weight by which they are commonly sold, but from the prices of quantities "*measurably proportioned,*" to quote his own words, "*to the quantities of each produced or purchased annually in this country.*" Mr. Grosvenor's principle has been much commended in Europe and in this country by persons skilled in such matters, and it is regarded as an important contribution towards accuracy in comparing prices at different periods. I regard the New York *Public's* comparison of prices at different times, as the best within reach, not merely from the improved principle upon which they are constructed, but from the wide range in the number of articles compared.

Treasury Report of 1863. The *Public*, which has from time to time enlarged and revised its tables, has always found that the lowest depression was in 1843, and not in 1842.*

In respect to the years subsequent to 1843, the figures based upon the prices of ten articles, already quoted from the Treasury Report of 1863, show a gradual recovery which culminated in 1856 and 1857, and was followed by another depression in 1858. Of this recovery, one of the causes, coming into operation after 1849, was manifestly the new gold from California and Australia, but the recovery was accompanied, at any rate, by a gradual enlargement of the *per capita* circulation of bank notes, which averaged \$7.31 during the four years 1854-5-6-7, as compared with an average of \$3.56 during the three years 1842-3-4. So also, the depression of prices in 1858 as compared with prices in 1857, which was from \$25.13½ to \$21.92, according to the figures of the Treasury Report of 1863, was accompanied by a shrinkage of the

* From the *Public* of January 1, 1880: November 1, 1878, was low-water mark for the last half of the century in respect to prices, as April 1, 1843, was for the first half. The decline which had commenced before the panic (in May), 1837, culminated early in 1843. Nor were the prices of 1878 at any time so low, on the whole, as those of 1843. The decline at that period was in a less degree checked by active foreign trade, and the prostration of domestic industry was more severe than it has been at any time since.

per capita circulation of bank notes from \$7.48 to \$5.26.

The statement that average prices in New York during 1858 fell, as compared with average prices in 1857, in the proportion of \$25.13½ to \$21.92, gives an inadequate view of the fall in prices which attended the revulsion of 1857, as there was a large fall during the year 1857. On pages 100 to 102 of the *American Almanac* for 1880, will be found a table showing that the highest and lowest prices of twenty-five articles in the New York market during the year 1857, differ in the proportion of \$201.28 to \$154.43, which roughly indicates the fall during that year, although doubtless somewhat exaggerating it.

The average wholesale prices, for four successive periods of six years each, of ten other articles in the New York market (corn, anthracite coal, Liverpool coal, salted fish, pig lead, sperm oil, tallow, mess beef, lard, and clover seed), taken from the Treasury Report of 1863, in connection with the average *per capita* circulation of the banks on the first day of January during the same four periods, confirm in a general way the conclusions to be drawn from the preceding table, in which prices and bank circulation are given for each separate year.

<i>Periods of six years.</i>	<i>Average prices.</i>		<i>Circulation per capita.</i>
From 1834 to 1839, both inclusive.	\$ 72.51	....	\$ 7.94
From 1840 to 1845, both inclusive.	52.97	....	4.76
From 1846 to 1851, both inclusive.	54.08	....	5.57
From 1852 to 1857, both inclusive.	69.77	....	6.99

CHAPTER XII.

ERROR OF ADAM SMITH'S THEORY, THAT REDEEMABLE BANK NOTES CANNOT INCREASE THE VOLUME OF MONEY. THAT THEORY OPPOSED BY THORNTON, RICARDO, AND OTHERS, AND DEFINITELY ABANDONED IN THE BRITISH BANK ACT OF 1844.

THE system of redeemable bank notes, of which we have had so long and deplorable an experience in this country, has never been reduced to practice in any important degree in Europe, outside of Great Britain, and was there definitely abandoned in 1844, and with no apparent prospect of being again revived. The theory upon which it rests, although it was not the invention of Adam Smith, was stated by him at considerable length in his *Wealth of Nations*, first printed in 1775-6, and his arguments in support of it are the ones which have been used with

very little variation or addition to the present time. He is the authority constantly invoked on that side of the question, and the great and deserved weight of his name has been an important circumstance in recommending it to the favor of English-speaking peoples. In the famous Bullion Report (1810) made to the British Parliament, his view that redeemable bank notes in no way affected the quantity, and therefore in no way affected the value, of money, was treated as a well-settled truth. And still nearer to our own times, in 1840, when Samuel Jones Lloyd (afterwards known, and now always referred to, as Lord Overstone) was endeavoring to convince a Select Committee of the British House of Commons on Banks of Issue, of the mischievous nature of bank notes as then issued and regulated in Great Britain, he was confronted by the reading, by one of the Committee, of Smith's defence of them, as a conclusive ending of the whole controversy. Lord Overstone replied in substance that no authority could uphold a demonstrated error; that the fact of the general wisdom of Adam Smith was quite consistent with his having made many and serious mistakes; and that mankind were constantly being educated by experience, and especially in respect to commerce, the expansion of which was the great feature of these

latter days, and in respect to money, the most important tool of commerce.

As the views of Adam Smith in respect to redeemable bank notes exerted so controlling an influence in Great Britain for half a century, and even now still prevail very largely in this country, it is necessary and proper to exhibit them in his own language.

In his *Wealth of Nations*, Book 2, Chapter 2, he says:

The whole paper money of every kind which can easily circulate in any country, never can exceed the value of the gold and silver, of which it supplies the place, or which (the commerce being supposed the same) would circulate there if there was no paper money. If twenty-shilling notes, for example, are the lowest paper money current in Scotland, the whole of that currency which can easily circulate there, cannot exceed the sum of gold and silver which would be necessary for transacting the annual exchanges of twenty shillings' value and upwards, usually transacted within that country. Should the circulating paper at any time exceed that sum, as the excess could neither be sent abroad nor be employed in the circulation of the country, it must be immediately returned upon the banks to be exchanged for gold and silver. Many people would immediately perceive that they had more of the paper than was necessary for transacting their business at home, and as they could not send it abroad they would immediately demand payment of it from the banks.

Further on in the same chapter he says.

A paper money, consisting in bank notes, issued by people of undoubted credit, payable upon demand without any condition, and, in fact, always readily paid as soon as presented, is, in every respect, equal in value to gold and silver money, since gold and silver can at any time be had for it. What-

ever is either bought or sold for such paper must necessarily be bought or sold as cheap as it would have been for gold or silver.

The increase of paper money, it has been said, by augmenting the quantity and consequently diminishing the volume of the currency, necessarily augments the money price of commodities. But as the quantity of gold and silver which is taken from the currency is always equal to the quantity of paper which is added to it, paper money does not necessarily increase the quantity of the whole currency.

The last proposition is illustrated by him in the following way :

The proportion between the price of provisions in Scotland and that in England is the same now as before the great multiplication of banking companies in Scotland. Corn is, upon most occasions, fully as cheap in England as in France, though there is a great deal of paper money in England, and scarce any in France.

Nothing can be more plainly true than that paper professedly and actually redeemable, and when the credit of the issues is "*undoubted*," or, in other words, universally confided in, must be as valuable as a purchasing medium in the market as gold and silver. Being as valuable, it would by most persons be preferred, from its easier portability and other considerations of convenience. But Smith seems never to have conceived the possibility of its being also true that while the parity of the paper and of the metals might be perfectly preserved, they could both be depreciated by there being a greater quantity of the mixed paper and metallic money

than there had previously been of the metallic money alone.

The reasons he assigns for believing that no such increase of quantity would take place will not, however, bear the test of any tolerably close examination.

In saying, as he does say, that "*the commerce being supposed the same,*" no more money can circulate at one time than at another, he fails to see that the quantity of money in use depends as much upon the scale of prices as upon the number and nature of the transactions. If a country could be surrounded with a Chinese wall, successive additions to its currency might be made *ad infinitum*; but it would be as scarce, in the sense of being difficult to be obtained, as it was at the beginning. The increased money would be absorbed in increased prices. Nobody would perceive that he had too much, and nobody would, in fact, have too much, having regard to the new scale of valuing land, labor, and commodities. Nobody ever had too much money, or is ever likely to have too much. However it may have been in the poetical ages of Arcadian simplicity, it is certain that in the present prosaic ages of commerce and financing, the wealthiest men are forced by the lack of money, in respect to the purchases and investments which are offered, to make a choice, and

not always an easy one, according to the varying degrees of attraction which they present.

Musgrave (*Studies in Political Economy*, 1875) says :

The time has not come in any place with which I am acquainted, when any one will declare that he has no use for more money. That period can only arrive when any one has more than he wants of every other article that can be purchased with gold.

The United States Monetary Commission (Report 1877, pages 8 and 9) point out accurately the difference between the effect of an overplus of commodities and the effect of such an increased supply of money as may be for the moment an over supply. They say that "*an overplus of a commodity manifests itself in a surplus, for which there is no effective demand, and which must be carried as a dead weight,*" whereas in the case of money, "*whatever the supply may be, there is no part of it which is a surplus or dead weight. It is all wanted, and all wanted alike.*" And as illustrating how speedily the demand for money always comes up to any increased supply, by raising prices and by stimulating industry and trade, they add :

The extraordinary gold production in California and Australia was quickly followed by a new demand for money, which arose from the business activity and prosperity which always attend an increase of money. This demand soon overtook the new supply.

These considerations abundantly justified the

United States Monetary Commission in adding (Report, page 9):

The demand for money is *universal*, constant and insatiable. Nobody ever had so much as to feel a loss or even a diminution of the desire for more. In business transactions it is never voluntarily parted with, except with the hope of its return, and with a profit. The effective demand for it, or, in other words, that demand which is accompanied by an ability to offer equivalents, is only limited by the extent of all the possessions of mankind, fixed and movable, and their total capacity to render services.

And, inasmuch as mankind have never failed, and never will fail, to advance the prices of their "*possessions fixed and movable*," and of their "*capacity to render services*" in the same proportion in which the volume of money is augmented, the day will never come when the "*universal, constant, and insatiable demand for money*" will be over supplied.

William H. Crawford, Secretary of the United States Treasury (*Report on the Currency*, 1820) says :

Every addition made to the currency by the issue of bank notes changes the relation which previously existed between the volume of the currency and the amount of the commodities which are to be exchanged through its agency. . . . Such an increase will be followed by a general rise in the value of all articles, especially of those which cannot be exported.

Condy Raguet (*Currency and Banking*, 1839) says :

As soon as time has been afforded for that general rise

in the prices of property and commodities, which is inseparable from increased issues of paper after it has become diffused throughout the circulation, the plenty disappears. . . It requires, *at the new prices*, the whole existing quantity of currency to circulate the commodities which *at the old prices* were circulated by the original quantity, and a scarcity of money is just as likely to be felt under a depreciated currency as under a sound one. The case is precisely the same as would exist if all the specie in the world were suddenly doubled. Money would be no more plenty than before, for the simple reason that the prices of property and commodities would be expressed by double the number of coins.

And if by possibility some small interval of time might elapse before the addition of a new paper money to an old coin. money caused a corresponding advance of prices, and if by possibility money might be perceived to be during this small interval unusually abundant, there is no reason for saying that the holders of the paper portion of the money would "*immediately demand payment of it from the banks.*" It is of no consequence whether they want it for a known present use, or keep it for a future use, known or unknown. They would be influenced in either case by the same preference for it over the metals, so long as the credit of the paper remained "*undoubted.*" Demand for the redemption of bank notes of "*undoubted credit,*" only comes after such notes have been in use long enough and in quantities large enough, to so raise prices as to create a balance of foreign

trade adverse to the country permitting the unrestrained issue of such notes. It is then, and not before, that bank notes are presented for redemption, whether the credit of the issues is doubted or undoubted, and for the sufficient reason that specie will pay debts to the foreigner, while bank notes will not. That is an aspect of the case which Smith entirely overlooked, but which the wider and more active movements of commerce since his time have made entirely familiar in the experience of mankind.

That Smith's attention was never drawn to the international effects of the issue and use of bank notes in a particular country, is manifest from his citing as proofs that such notes do not increase the currency and prices of the issuing country, the fact that the then current comparatively larger note issues in Scotland had not changed the previously existing proportion between English and Scotch prices of provisions, and the other fact, that corn was ordinarily quite as cheap in England, which used "*a great deal of paper*," as in France, where "*scarce any*" was used. He clearly had not the slightest conception that anything done in Scotland, in the way of substituting paper for coin, could affect England, or that anything done in that way in England could affect France. He

contented himself with laying down the doctrine, that just as many metallic pounds in Scotland were expelled from the Scotch currency, as there were paper pounds added to it. What became of the metallic pounds expelled from Scotland, and whether they might not be producing an effect upon prices elsewhere, he did not stop to inquire. What he noticed as a fact of observation was, that the relative proportion of prices as between countries on the metallic basis did not seem to be affected by their using different proportions of redeemable paper in their currencies, and he jumped to the conclusion that it was thereby proved that redeemable paper added nothing to the volume of the currency or to the prices of the country issuing the paper. The true explanation of the fact observed by Smith is, not that there is in the countries issuing paper no increase of currency and prices as the result of the issue of paper, but that there will be in the end a corresponding increase of currency and prices in all other countries on the metallic basis, so that the old relation of prices between the issuing country and other countries on that basis will not be permanently changed. There is a certain necessary relation between the prices of Scotland and England, and it is a very close relation, because they are adjoining countries, and

the intercourse between them encounters no legal and very little physical obstruction. If England should adopt an exclusively metallic currency, and if Scotland should entirely expel gold and silver by the issue of one-shilling notes, the present relation of Scotch and English prices would continue so long as the Scotch one-shilling notes were actually kept at the metallic standard by redemption, or in any other way. There is also a certain necessary relation between the prices of England and those of France, and indeed those of all other nations on the metallic standard, which is as fixed and controlling, although not so close, as the relation of prices between the different parts of the same country.

As we have seen, the increase of redeemable bank notes of "*undoubted credit*" is finally checked, not because the currency of a country ("*the commerce being supposed the same*") will not admit of indefinite additions, which will be absorbed by an augmentation of prices, but because augmented and augmenting prices end at last in foreign debts, which cause bank notes to be presented for redemption. That is the limit to redeemable bank notes, and it is by understanding the exact nature of that limit, that we shall be able to understand how inherently and hopelessly unsound a redeemable bank-note circulation must always be.

If the limit to the possible circulation of bank notes was, that it must always be such as would be consistent at every given time with the equilibrium of money and prices between the country permitting the issue of the notes and other countries on the metallic standard, it would be a limit quite free from objection, because it would preserve as great a degree of steadiness in the volume of money and in prices as is possible with a metallic standard. But the real nature of the limit is, that it need be only such as is consistent with the maintenance in the long run of the equilibrium of money and prices between the country in which redeemable bank notes are issued and other countries on the metallic standard, and it admits of such expansions of the volume of bank notes as will cause large outflows of specie, followed by contractions which will cause corresponding inflows of specie. It is an inherent tendency of bank notes to expand, until an outflow of specie does occur, and the subsequent contraction is equally inevitable so long as the issues are governed by the determination to maintain their redeemability. And, hence, we see in countries under the bank-note *regime*, the most extreme alternation in the balances of the foreign merchandise trade, and in the movements of specie inwards and outwards, by which such balances are commonly adjusted.

Without multiplying instances of the effect, as a matter of fact, of changes in the balances of foreign trade, caused by expansions and contractions of bank notes, it will be sufficient to compare the foreign trade of this country for the three years ending June 30, in 1835-6-7, when the bank-note circulation averaged \$8.56 *per capita*, with the three years ending June 30, in 1842-3-4, when the bank-note circulation averaged \$3.89 *per capita*:

	<i>Imports, less foreign merchandise re-exported.</i>		<i>Exports of domestic merchandise.</i>
1835....	\$122,007,974	..	\$100,459,481
1836....	158,811,392	..	106,570,942
1837....	113,310,571	..	94,280,895
1842....	87,996,318	..	91,799,242
1843....	37,294,129	..	77,686,354
1844....	96,390,548	..	99,531,774

During the first three years the aggregate adverse balance was \$92,820,619, and the average annual adverse balance was \$30,940,206. During the second three years the aggregate favorable balance was \$47,346,565, and the average annual favorable balance was \$15,782,188. During the year (1843) of the greatest contraction of bank notes and depression of prices, the net import of foreign merchandise was less than a fourth of what it was in 1836, and the export of domestic merchandise was more than double the net import of foreign merchandise.

It is almost difficult to conceive of the violence of the disturbance of the equilibrium of money and prices between this country and the countries with which we trade, both at the period of bank-note expansion (1835-6-7) and at the period of bank-note contraction (1842-3-4), and yet those disturbances were consistent with the maintenance of that equilibrium in the long run, which the continuous redeemability of bank notes requires.

Near the end of the chapter in the *Wealth of Nations*, in which the author treats of bank notes, will be found the following, which may suggest a partial solution of the amazing errors into which he fell on that subject :

The proportion between the value of gold and silver and that of goods of any other kind depends in all cases, not upon the nature and quantity of any particular paper money, but upon the richness or poverty of the mines, which happen at any particular time to supply the great market of the commercial world with those metals. It depends upon the proportion between the quantity of labor which is necessary to bring a certain quantity of gold and silver to market, and that which is necessary in order to bring thither a certain quantity of any other sort of goods.

Here we find him assuming that the value of gold and silver, used as a means of purchasing commodities, is determined, "*in all cases*," by the amount of labor necessary to bring those metals to market at the time of such use as a purchasing medium, as compared with the amount

of labor necessary to bring to market the things purchased. On that view he concludes that it is impossible that the value of gold and silver can be affected by "*the nature and quantity of any particular paper money.*" While he thus erroneously assigns to the precious metals a value depending solely upon the cost of production, he was nevertheless aware that the value of money depends upon its volume. In order, therefore, to maintain that redeemable bank notes do not reduce the value of money, he was obliged to maintain that they do not increase its volume, but merely supply the place of an equal quantity of previously current coins.

The value of gold and silver is really determined, as the value of everything else is determined, by the proportion between the supply and demand. The supply is the total stock, including the accumulations of ages, and is very little and very slowly affected by the current annual production, or by the current cost of production. The dominating element in the demand for them arises from their use as money, and it is thus true that the value of coins controls and fixes the value of the bullion which constitutes their material. And to whatever extent currencies kept at the metallic standard are enlarged in volume by paper, they must be reduced in value, and from this reduction the

coin part of such currencies cannot by any possibility escape.

Condy Raguet (*Currency and Banking*, 1839,) says :

So long as bank notes are convertible into coin on demand, they are liable to depreciation, or a fall in value, in common with the gold and silver for which they are interchangeable, from all the causes which we have shown capable of producing that effect upon a currency purely metallic. But, in addition to this, they are susceptible themselves of depreciation from excessive issues, *and in such event involve the metallic portion of the currency in the same depreciation.*

During the twenty years of controversy in Great Britain, which preceded Peel's Bank Act of 1844, the supporters of Adam Smith's doctrines in respect to redeemable bank notes invented only one new argument or theory in support of them. With that exception, they contented themselves with either quoting his exact language, or with setting out his ideas in new forms of words.

Persons who lack the time, or disposition, to read over any considerable portion of the books and pamphlets to which this controversy gave rise, will find a very fair and intelligible account of it in McLaren's *History of the Currency*, published at the beginning of 1858. McLaren was himself a supporter of Smith's opinions, but he seems disposed to report impartially what was said on both sides. On the side of

the theory that redeemable bank notes cannot augment the volume of money, or (in any appreciable degree) increase prices, he reports the following views :

Page 285.—Mr. Tooke, Mr. Fullarton, and Mr. Wilson consider money as possessing intrinsic value as a commodity and exchanging with goods according to that value, and not merely in accordance with the number of pieces at the time.

Page 289.—Mr. Tooke and his friends say that, as a general principle, a currency of notes, convertible for gold, must always be of the same value, indeed of the same amount as a metallic currency, because notes will be exchanged for gold immediately that they lose a part of their value. If the currency were effected by the issue of notes, it would probably, as here supposed, not be much increased, because the bullion would leave it as fast as the notes were issued.

Page 223.—As to the view that our whole currency may become redundant, as compared with that of other nations, Mr. Wilson says that the cost of the exportation of bullion is a mere trifle ; that, in consequence, the exportation would begin immediately that our currency began to become redundant, and thus any perceptible rise of prices on that account would be prevented.

Page 213.—Mr. Fullarton, like Mr. Wilson, denies that over-issues of convertible bank notes are possible.

Page 289.—But, leaving the general case, they [Tooke and his friends] maintain that no issue of our notes can affect prices, as the notes are not for the same amount as the money of the country, nor capable of being used for the same purposes as the gold, by which all retail transactions are conducted, and prices, so far as they depend upon the currency, determined. There seems great force in this argument ; for if prices between the retail dealers and their customers are limited by the value of gold, how can they be maintained at a higher rate in the wholesale transactions, in which the retailers purchase their goods.

The modern upholders of the opinions of Adam Smith do not seem to have added anything to his arguments in support of them, except the suggestion that the wholesale prices of commodities depend upon the prices paid at retail, and that if bank notes are restricted, as in England, to denominations higher than such as are commonly used in retail transactions, they can have no effect upon retail prices, and therefore none upon wholesale prices.

If there is any force in this suggestion, it really tends quite as strongly to prove that English prices depend upon the English subsidiary silver coins, as that they depend upon the English gold sovereigns and half sovereigns. Vast numbers of Englishmen never handle either paper or gold, and a considerable portion of the English retail trade is carried on with silver shillings and other silver coins.

All the moneys used in England—gold, silver and paper—are of the same value. The differences between them are of denominations only, and have no relation to the diversity of the materials out of which they are manufactured. Englishmen meet with no difficulty in buying a five-shilling article with a five-pound note, or in making a fifty-pound purchase, or in paying a fifty-pound debt, with gold sovereigns. The interchangeability in use, in wholesale and retail

transactions, of all the moneys, encounters no practical obstruction whatever.

But instead of its being true that retail prices govern wholesale prices, exactly the contrary is true, and the common understanding of mankind is that exactly the contrary ought to be true. Retailers themselves always justify their own prices as being as low as they can make them, consistently with the wholesale cost of the articles they deal in, with the addition of any reasonable retail profit. The cost at which retailers purchase goods has the same kind and degree of control over the prices at which they sell, as the cost of production has over the prices of the producers.

It is, however, of no consequence, which class of prices controls, if either does control the other. The moneys in which goods are paid for at either wholesale or retail, are kept at a parity of value in all countries which are tolerably well governed, and all descriptions of money are indifferently used more or less, and under no other limitations than those of convenience, in transactions of all kinds, large and small.

At the very beginning of this century, in 1802, in Thornton's *Inquiry into the Nature and Effects of the Paper Credit of Great Britain*, the error of Smith, that redeemable bank notes cannot increase and depreciate a metallic cur-

rency, was intelligently pointed out, as appears from the following account given by McLaren (page 90, of his *History*, &c.):

Mr. Thornton, in opposition to Dr. Smith, maintains that a currency of notes, convertible at will for gold, may be depreciated by too copious an issue below the value of a metallic currency, and that prices will be raised by such depreciation. It is, he maintains, this rise in prices, and not the filling of the channel of circulation, which turns the exchanges against us, and drives the gold out of the country. He says that it is not possible for the channel of the circulation to become too full, as stated by Dr. Smith, but that every increase of paper enhances the prices of goods of all kinds, which advanced price affords employment for a larger quantity of circulating medium, so that the circulation can never be over full.

Ricardo, who took a leading part in these discussions during the first quarter of the century, saw even more clearly than Thornton did, that while paper convertible into coin could never depreciate below coin, it was the combined mass of such paper and of coin which determined the quantity of the currency and thereby determined its value; that such paper might depreciate the whole currency, including the coins, and make it redundant as compared with the currency of other countries on the metallic basis; and that this redundancy must first manifest itself in an excess of prices, relatively to the prices of other countries on the metallic basis, before it would be corrected by an export of coin.

The merit of discovering a remedy for the mischiefs pointed out by Thornton and Ricardo is due to the next generation of British financial reasoners, who, during the middle of the century, forced the passage of the Bank Act of 1844, and sustained it against persistent assaults made after it was passed. The guidance of this crowning reform was in the firm hands of Lord Overstone, who, to great abilities, united an unshaken and somewhat imperious will. He and his coadjutors saw clearly, that to issue circulating paper is to create money; and that the tendency of redeemable bank notes to ruinous alternations of excess and deficiency is inherent and irremediable, so long as the amount to be issued is controlled, either by the arbitrary discretion of bankers, or by the wants of trade operating through any form of connection between the issue of paper and the ordinary and proper business of banking, such as loaning money, receiving deposits, and discounting notes. The plan which they devised and carried through was not a plan of reforming a system too completely rotten to be susceptible of reform, but to revolutionize it from the bottom, and to substitute a system under which all that part of the paper circulation intended to be convertible, or in respect to which there was any reasonable possibility of its conversion being demanded,

should represent an equal amount of the metals, so that under all circumstances the total currency of coin and paper should fluctuate in volume only as an exclusively metallic currency would fluctuate.

CHAPTER XIII.

NO FIXED PROPORTION OF SPECIE TO CIRCULATION
EVER MAINTAINED IN THIS COUNTRY. FALLACY
OF DANIEL WEBSTER'S OPINION THAT SUCH A
PROPORTION WOULD MAKE THE VOLUME OF
MONEY STEADY.

THE theory in respect to bank notes which has been generally taught, and which has generally prevailed in this country, as it did in Great Britain until the passage of the Bank Act of 1844, has been, that the only safeguards required were those which secured, or were supposed to secure, the constant convertibility of the notes into specie. By most persons, both the liability of such a currency to fluctuations in its volume, and the mischiefs arising from such fluctuations, have been overlooked. Others, by whom the liability to fluctuations has not been overlooked, have persuaded themselves, that if the continu-

ous redemption of bank notes is efficiently secured, the possible variations in their amount will be beneficial, rather than harmful, because controlled by the varying wants of trade. Hence, no restraints upon the aggregate quantity of bank notes (except one in respect to the National banks which was very soon removed), and no fixed relation of such notes to a specie basis, have ever been enforced by law in this country, as they had not been in Great Britain before 1844. More or less specie has always been kept on hand by the banks in this country, but the amount has been determined by their own prudence, and upon their own view as to what was required, from time to time, to meet the obligation to redeem their notes on demand, and in general they have relied in respect to that, not upon specie actually on hand, but mainly upon keeping their assets in readily available forms. To-day, it is the current idea of the bankers of the United States that the true basis of bank notes—insuring their convertibility and sufficiently regulating their quantity—is the volume of commercial paper originating in actual business transactions and discounted by the banks.

But what I propose now to consider is the more plausible, and therefore more dangerous, theory, that serious fluctuations in the quantity

of bank notes may be guarded against by limiting them to a fixed proportion to a specie basis.

During the years 1835 and 1836 there had been witnessed in the United States an inflation of redeemable bank notes and of prices, accompanied with a wildness of speculation, never witnessed before or since in this country, and, perhaps, never in any country. This inflation came to an end in a general suspension of specie payments on the 10th of May, 1837.

In this condition of things, Daniel Webster, in a speech in the United States Senate, December 21, 1836, made the following observations:

I admit that a currency partly composed of bank notes has always a liability, and often a tendency, to excess.

I am of opinion, even, that the convertibility of bank notes into gold and silver, although it be a necessary guard, is not an absolute security against an occasional excess of paper issues.

I believe, even, that the confining of discount to such notes and bills as represent real transactions of purchase and sale, or to real business paper, as it is called, though generally a sufficient check, is not always so; because I believe there is sometimes such a thing as over-trading and over-production.

What then, it will be asked, is a sufficient check? I can only repeat what I have before said, that it is a subject which requires the constant care, watchfulness and superintendence of Government.

Later on we find him in the United States

Senate, March 12, 1838, making the following observations :

I hold it to be of the utmost importance to prove, if it can be proved, to the satisfaction of the country, that a convertible paper currency may be guarded against probable dangers. . . . There is a liability to excessive issues of paper even while paper is convertible at will ; of this there can be no doubt. This renders it necessary that they should be regulated and controlled. The question is, By what rule? To this I answer, By subjecting all banks to the rule which the most discreet of them always follow—by compelling them to maintain a certain fixed proportion between specie and circulation, without regarding deposits on one hand, or notes payable on the other.

It abundantly appears from the whole context of this speech of March 12, 1838, that the danger against which Mr. Webster was looking for a safeguard was not the insolvency of banks as respects the redemption of their notes, but irregularity in the volume of the currency furnished by them, and especially excessive issues. He decisively rejected, both the delusive teaching of Adam Smith, that actually redeemable bank notes cannot make the currency redundant, or even increase it at all, and the more modern theory, that the wants of trade, as indicated by the offers for discount of "*real business paper*," are a reliable regulator of bank-note issues. In March, 1838, he supposed that he had discovered what he had evidently not discovered in December, 1836, that the true and efficient regu-

lator was a "*certain fixed proportion between specie and circulation.*"

In order that this "*certain fixed proportion*" should be at all times maintained, it is, of course, necessary that the circulation should be reduced in the same proportion that a bank loses its specie. If half of the metallic basis is drained away, half of the paper must in some way be withdrawn, so that if the "*fixed proportion*" is three or five of paper to one of coin, three or five paper dollars must be taken in, and for the time being destroyed, whenever one coin dollar is taken out of the bank vaults. Mr. Webster admitted the possibility of the occurrence of drains of specie due to temporary causes, when a contraction of the circulation might not be really necessary. But he insisted that it could never be certainly known what the causes of a drain actually were, and that the only prudent course was to be governed by the fact of a drain, and to meet it in all cases by a contraction of the circulation. On that point he said:

Circulating paper is thus kept always nearer to the character and to the circumstances of that of which it is designed to be the representative, the metallic money. . . . The true criterion by which to decide the question of excess in a convertible paper currency, is the amount of that paper compared with the gold and silver in the banks.

Mr. Webster does not state what the "*certain*

fixed proportion between specie and circulation" ought in his judgment to be, nor what "*certain fixed proportion*" of that kind was in fact maintained by those banks which he describes as "*the most discreet.*" No such "*certain fixed proportion*" was ever maintained, or professed to be maintained, by the Bank of England or by any Bank in the United Kingdom of Great Britain and Ireland before the Bank Act of 1844, and, of course, not since, as that law prescribed a radically different rule. All that the Bank of England ever professed to do before the Bank Act of 1844 was passed, was to maintain an equality between its specie and certain assets described as "*securities*" on one side, and the aggregate of its circulation and deposits on the other side. Even that plan, admitting as it did of an increase of circulation while the specie was declining, was never adhered to in practice. No such "*certain fixed proportion*" as Mr. Webster describes had ever been effectively imposed upon any banks in this country when he made his speech of March 12, 1838, nor has it been imposed since. It may be true that certain banks, in 1838 and prior thereto, may have represented themselves as observing a "*certain fixed proportion*" between their specie and circulation, and may have really supposed that they could fairly describe themselves as observing such a propor-

tion, but it is plain that without the aid of law their specie could not have been set apart exclusively for the redemption of their circulation and be exempt from its liability for their deposits and other debts.

The practice in this country, prior to 1838, had been to limit the amount of bank notes, when they were limited at all, not to any proportion of the specie held in reserve, but in some proportion to their capital. They were generally permitted to issue an amount equal to their capital, but oftentimes more. In the law drawn by Alexander Hamilton, creating the first National bank, with \$10,000,000 of capital, in 1791, Congress imposed no other restriction upon its note issues, except such as is involved in the following :

The totality of the debts of the company, whether by bond, bill, note or other contract (credits for deposits excepted) shall never exceed the amount of its capital stock.

The same thing appears in the law of 1816, creating the second National bank, with a capital of \$35,000,000, with no change, except in phraseology, as follows :

The total amount of debts which the said corporation shall at any time owe, whether by bond, bill, note, or other contract, over and above the debt or debts due for money deposited in the bank, shall not exceed the sum of thirty-five millions of dollars.

The Michigan banking law (1836) permitted

an issue of notes to three times the amount of capital stock.

In New York, where, if anywhere, the influence of bankers, described by Mr. Webster as "*discreet*," might be expected to be exerted, the restriction upon issues, prior to 1837, was that they should not exceed twice the capital stock of banks. In 1837, the rule was changed, so as to allow only to banks with less than \$200,000 of capital, an issue greater than their capital. In 1838, the year when Mr. Webster made his speech, it was changed again, so as to limit issues to the amount of public stocks and real-estate mortgages (not more than one-half to be mortgages), placed in the custody of a State official for their redemption. In all these laws, while specie redemption was enjoined as a duty, and with considerable penalties for its non-performance, no reserve of specie was required.

It does not appear that Mr. Webster's rule, proposed in 1838, has grown in favor since with the persons and influences which have controlled legislation upon the subject of banking, either in this country or in the important English-speaking country north of us. It is true, that as respects our National banks, there is a redemption fund, substantially of coin, bearing a fixed proportion to their circulation, but it is so minutely small, five per cent. of the circula-

tion, or only one dollar of coin to twenty of paper, that, whatever other useful purposes such a redemption fund may answer, it cannot so connect the paper and coin as to give to the paper any of that degree of steadiness in quantity which coin possesses.*

In Canada, as its currency system was described by the Manager of the Merchants' Bank of Montreal, at the August (1881) session of the American Bankers' Association, the banks have "*a free circulation limited only by the amount of their paid-up capital,*" it being claimed that this "*system of free issues is maintained at a healthy level by daily redemption under which over-issues are impossible.*"

But, although both the earlier and later tendency of opinion among persons engaged in

* The Act of June 3, 1864, which originated the National bank system, required no proportion of reserve (coin and United States legal-tender notes) to circulation, but only a proportion of reserve to the aggregate of deposits and circulation. The proportion so required was twenty-five per cent. in the more important cities which were named in the Act and were seventeen in number, and only fifteen per cent. in all other places, and the fifteen per cent. was really reduced to six per cent., by permitting three-fifths of it to be transformed from cash into an interest-bearing loan on call to any of the banks in the seventeen cities.

The present system of a five-per-cent. cash fund held in Washington for the redemption of the circulation, was established by an Act passed in 1874, since which time the reserves held by the banks themselves are against their deposits only.

banking in America has been in the direction of requiring little or no connection between redeemable bank notes and coin held in reserve for them, and of preferring to base their redemption upon a sufficiency of commercial paper maturing within short periods, it is nevertheless true, that there are many persons who now believe, as Mr. Webster believed in 1838, that a certain proportion of coin to paper is essential to give steadiness to the volume of paper and check its tendency to excess, and that it would be effectual and sufficient to accomplish those objects.

The actual method by which the issue of the legal-tender notes of the Government of the United States is now regulated, is that of a proportion between the notes and the coin held in reserve for them, and until the proportion as at present established shall be changed, it will be two dollars of coin for five dollars of paper.

There can be no doubt that the plan which Mr. Webster advocated in 1838, of maintaining "*a certain fixed proportion between specie and circulation,*" and especially if the proportion of specie was tolerably large, as for example, one dollar of specie to three of paper, would be satisfactory to a large majority of the people of this country, in the present state of American public opinion upon such subjects. Nevertheless, the

objections to the plan, whatever the proportion (less than dollar for dollar) of coin to paper may be, are plain, insurmountable and decisive.

When the money of a country is kept at the standard of the metals, expansions and contractions of its volume, as the result of alternating balances of the foreign trade and of alternating outflows and inflows of coin and bullion, cannot be avoided, but this plan increases both the contractions and expansions, and thus aggravates and intensifies their mischievous consequences. Losses or gains of specie by banks are ordinarily caused by the state of the foreign exchanges, and when caused in that way, they produce an increased contraction or expansion of the currency in whatever proportion bank notes exceed the coin held as a reserve against them. Losses of specie are sometimes, although in comparatively few instances, caused by a want of confidence in the banks, varying from mild forms of distrust to absolute panics, but when caused in that way, they do not produce so great a contraction of the currency, because the specie drawn from the banks still remains in the country. If the "*certain fixed proportion*" of coin to circulation is one to four, a drain of one million of dollars to be sent abroad produces a currency contraction of four millions, whereas a domestic drain of one million, while

it contracts the paper part of the currency four millions, adds one million to the coin outside of the banks, so that the contraction of the whole currency, specie and paper together, will be only three millions. In the *Report on the Currency* (1820) of Wm. H. Crawford, then Secretary of the United States Treasury, it is observed :

When there is but little or no demand for specie, the temptation to increase their discounts by the issue of more paper is too strong to be resisted by banks. When a demand for specie arises, the currency has to be suddenly diminished.

* * * * * * *

If this diminution could be limited to the amounts drawn from the banks, the evil would be no greater than if the currency were metallic. But this is not the fact. When the paper circulation is returned upon the banks for specie, prudence requires that an effort should be made to preserve the same proportion between the specie in their vaults and their notes in circulation as existed at the moment the pressure commenced. If the paper in circulation should be three times the amount of specie in the possession of the banks, a demand upon them for \$1,000,000 of specie would produce a diminution of \$3,000,000 in the currency if the specie should be exported, and of \$2,000,000 if it remained in the country. It is even probable that the comparative diminution would exceed this ratio.

It is a fatal weakness, which no medicament can cure, of a currency consisting in whole, or in part, of bank notes resting on "*a certain fixed proportion of specie*," held in reserve, that some portion, and almost always a considerable portion, of such a currency, is liable to destruc-

tion at the will of the holders of bank notes, whether that will is controlled by mere caprice, by panic, or by a need of specie for exportation.

If the currency is metallic, or if the paper which supplements it is fixed in amount and is made indestructible by being made inconvertible, the drain upon the money of a country arising from an adverse balance of trade is only equal in amount to the addition which is at the same time, and as a consequence of the same fact, being made to the aggregate currency of other countries on the metallic basis. All that is lost to the country exporting specie reappears immediately as an augmentation of the volume of money elsewhere. There is no destruction of money, and even that portion of it which is sent abroad serves in some measure to sustain prices at home, inasmuch as there is a certain relation of prices, although not a level, between all commercially connected markets.

The people of this country have been so long accustomed to the fact of the redemption of paper money, and have been so constantly taught by blind instructors in finance that the redeemability of paper money is in itself a desirable and even an essential thing, that they will be slow to see that money is a finality and never ought to be redeemed in anything,

and that to redeem it is to destroy it, and none the less an absolute destruction of it for the time being, because it may be again recreated. And yet nothing is really more plain than that, inasmuch as the value of money, under any given degree of demand for it, depends absolutely upon its volume, the steadiness of its volume relatively to the demand for it is the primary requisite of a sound money, and that while its absolute steadiness is an unattainable degree of perfection, it is the wantonness of folly to permit the existence of redeemable bank notes, which necessarily aggravate and intensify the unavoidable fluctuations of a currency on the metallic standard.

The only money capable of perfection, would be one manufactured out of a material costing substantially nothing, redeemable in nothing else inasmuch as the redemption of money is its destruction, non-exportable, deriving its existence from the will of governments, authenticated by an official stamp, and regulated as to its value by limiting its quantity.

It is theoretically possible that the intelligence and honesty of legislators might, in the first instance, fix the volume of such a money with a due regard to existing prices, and to the equities of existing contracts to pay money, and regulate subsequent changes in its volume by

a rule duly observing all the circumstances which ought to be taken into consideration.

But what we have to deal with is not theoretical possibilities, but the practical question of how best to manage a money on the metallic standard, which is the one now actually in existence in our own and in most other commercial countries, which conforms to the present and long established habits and opinions of mankind, and which is not likely to be given up for a considerable period of time to come.*

So long as it shall remain the decision of mankind to use a money kept at the metallic standard, my contention is, that it should consist of the metals (circulating either in the metallic form, or in the representative form of paper vouchers for metal actually held in deposit), and that all the paper by which the volume of metallic money may be supplemented and enlarged, should be inconvertible into anything else, either coin, land, or bonds, to the end that its quantity may not undergo changes from portions of it being destroyed by redemption.

* By the metallic standard, as familiar in the experience and traditions of mankind, is intended the monetary use of both gold and silver. A perseverance in the 'new scheme, first heard of twenty-five years ago, of the use of a single and the same metal by all the commercial nations, can have no other possible termination than the entire abandonment of the metallic system.

In respect to the metals, it is indifferent, so far as the nature of the money is concerned, and only a question of convenience, whether they are used in the corporeal form, or by paper titles to them in the nature of warehouse receipts, such as the certificates of gold and silver deposited and kept untouched in the Treasury of the United States, or such as the notes of banks actually representing an equal amount of specie, of which there have been in other countries several historical examples. Paper of those descriptions, carrying with it the ownership of specie actually in existence, and being a valid and effective order for its delivery, is in both form and substance a metallic circulation. In respect to the supplementing inconvertible paper, it can, of course, be kept at the metallic standard only by a limitation of its quantity. The value of it, like that of any species of money, and like the value of everything else, will be fixed by the play of the forces of demand and supply. The demand arises from the monetary function conferred upon it by law, and its value in any country will equal that of the metals, if the supply is kept always within the limit of the lowest amount to which the metallic money of such country, if its currency was exclusively metallic, could by any reasonable possibility be reduced.

The British monetary system is, in substance and fact, upon the basis just described, and has been so since 1845, when the Scotch and Irish banks were subjected by law to the same general rule which was enforced upon the Bank of England and all other English banks by the Bank Act of 1844. The British currency consists to-day, in part of the metals and of paper actually representing the metals, and in part of a fixed amount of paper really inconvertible, but kept at the metallic standard by the limitation of its quantity. I shall hereafter endeavor to show that it is only upon this basis that the metals can be safely supplemented by paper, and I refer to it now, mainly for the purpose of illustrating by contrast, the true nature of, and the fatal objections to, the plan of redeemable bank notes on the basis of "*a certain fixed proportion between specie and circulation.*"

If, in a country having a currency kept at the metallic standard, the paper part is fixed in quantity, and inconvertible, the total volume of its money is affected by outflows and inflows of specie only to the precise extent of such outflows and inflows, and the total volume of the money of the world is not affected at all. But if the paper part of the currency is maintained always at a "*certain fixed proportion*" to a

specie basis, there will be, in the case of an export of the metals, in addition to the loss of the money sent abroad, for which there is a certain compensating advantage in the raising of prices abroad, the further wholly uncompensated loss of a part of the paper money, which is destroyed by being redeemed. A foreign drain of specie results from an excess of the prices of a country relatively to the prices of other countries, and will continue until the equilibrium of prices is restored. Such a restoration is not felt injuriously, so far as it is brought about by an increase of foreign prices. The severity of the depression which accompanies it is increased precisely in the proportion in which it is brought about by the fall of prices at home, as it must mainly be under a money system which compels the destruction of from three to ten paper dollars when only one metallic dollar is exported.

The greater or less magnitude of the injurious effects of redeemable bank notes bearing "*a certain fixed proportion*" to a specie basis, will be determined :

First, by the proportion of the notes to their metallic basis, the range of their fluctuations being greatest when the metallic basis is least.

Second, by the proportion which such bank notes bear to the total volume of the currency.

If they constitute the whole currency, a diminution of them by one-half, or a duplication of them, will diminish the whole currency by one-half, or duplicate it; whereas, if they constitute only one-half or one-fourth of the whole currency, the effect of their fluctuations upon the entire mass of money will be correspondingly reduced.

CHAPTER XIV.

ISSUING BANK NOTES IN PROPORTION TO DEMAND—
FOR COMMERCIAL DISCOUNTS. ITS TRIAL, FAIL-
URE, AND ABANDONMENT IN GREAT BRITAIN.
STILL FAVORED BY AMERICAN BANKERS.

It was long believed in England, and the belief is still widely prevalent in this country, that it is one of the chief merits of a bank-note currency, that it expands and contracts with the demands of trade; that there is no danger of its becoming inconvertible so long as it is based upon the discount of legitimate commercial paper; and that it needs no other regulation of its volume than continuous and reliable redemption in coin.

For the purpose of a more accurate under-

standing of the nature of these opinions, it will be convenient and useful to begin with a statement of the views, from time to time, of the Managers of the Bank of England, which has been called "*the parent of all mixed-currency institutions throughout the world.*"

The following account of testimony given before the British Parliamentary Committee of 1810, commonly known as the Bullion Committee, is taken from McLaren's *History of the Currency* :

Page 119.—The directors of the Bank (of England) and some of the merchants examined before this committee, stated that, in their opinion, there could not be an excess in the issue of bank paper so long as it was issued on the discount of good bills, growing out of real commercial transactions, and having but short periods to run. The bank notes, say the directors, will return if not required, because no one will pay interest for them if they do not want to make use of them. The committee dissent from this position, if the notes be inconvertible.

Page 121.—The committee elicited from the Bank directors that they had not been in the habit of attending to the state of the foreign exchanges or the price of gold, in regulating the issue of their notes. The directors stated that their principle was to look to the amount already advanced to the individuals asking discount, to the solidity of the paper, and the appearances of its being wanted for commercial purposes.

Mr. Bosanquet, one of the directors of the Bank, being dissatisfied with the opinion of the Bullion Committee, that the notes of the Bank, if inconvertible, might be issued in excess, pub-

lished his *Practical Observations on the Report of the Bullion Committee*, in which he maintained that if the Bank issued notes beyond the wants of trade, the holders of the excess would use them in discounting paper, so that the Bank would not only be deprived of the opportunity to make further discounts, but would have the paper it had already discounted paid in its own notes, and that in this way the excess of its issues would be corrected. Ricardo, replying to Bosanquet, pointed out, that no matter how many notes were issued, the wants of trade would never be over-supplied, because prices would expand as notes multiplied, and more notes would be needed to carry on the same transactions.

The British Parliamentary Committees appointed in 1819 to consider the question of resuming specie payments, examined, among others, Mr. Dorrien, the then Governor of the Bank, Mr. Harmon, one of its ex-Governors, and Mr. Holdiman, a director.

EXAMINATION OF MR. DORRIEN.

Question.—Is the Committee to understand that the Bank of England regulate their discounts solely by a view to the volume of the transactions and the state of the parties, and not with any view to the state of the foreign exchanges?

Answer.—If a house which is in the constant habit of dealing in exchanges was to send in a large sum for discount, at a time that the foreign exchanges were unfavorable, it certainly would become a part of the consideration.

Question.—Are the discounts of the Bank in all other cases regulated solely by a regard to the transaction and the character of the parties ?

Answer.—The various circumstances that bear upon the question, the solidity of the party, the amount of their account, and the nature of their business, are taken into the account.

To other questions, Mr. Dorrien made the following replies :

The Bank is always ready to lend on commercial paper that is legitimate, and is not carried to too great an extent by the parties who apply for discount. The issues of the country should be regulated by the absolute wants of the country, but that must be learnt by experience.

An issue of Bank paper upon Government security is beyond the control of the Bank ; an issue upon commercial bills is always within the power of the Bank.

EXAMINATION OF MR. HARMAN.

Question.—What is the indication of there being circulation enough in the country, neither too little, nor too much, and what the regulator that determines that sufficiency ?

Answer.—Undoubtedly, good paper being sent into the Bank for discount, of which we must judge the best we can ; that is the criterion ; I take for granted that established houses of good character would not come to the Bank to pay five per cent. for money, if they did not want it.

Question.—What regulates, in your opinion, the amount of circulation which is necessary for the purposes of the country ?

Answer.—I should think decidedly, the amount required for the revenue, and the general expenditure, and also what is wanted for inland and foreign trade.

EXAMINATION OF MR. HALDIMON.

I have no hesitation in saying that were the whole or nearly the whole of the Bank's paper issued upon commercial paper, by diminishing such issues it might pay its notes in specie within the most limited period, and with the most perfect safety to itself.

The reports of the Committees of both the Lords and Commons advised that the Bank should be required to resume specie payments within a brief period, and they described such a restored redeemability of its paper in coin as being "*the restoration of the currency of the country to a state of regulation by its ancient metallic standard.*" They prescribed no limitation of its paper, nor proportion between its paper and coin reserve. They believed that convertibility was the only measure needed to bring the currency to "*a state of regulation by its ancient metallic standard,*" and that to ensure convertibility, it was only necessary to restore to the Bank some portion of the money which it had loaned to the Government, so as to enable it to increase its stock of commercial bills. Convertibility, based upon and secured by an ample supply of easily realizable assets, was, in the opinion of both committees, the fitting and sufficient remedy for all existing evils.

Lord Overstone (*Remarks on the Management of the Currency*, 1840) says :

For the purpose of giving to the Bank a greater control of its issues, it was recommended that a large portion of the debt due from the Government to the Bank should be repaid.
 . . . All the witnesses, and both the Committees of Parliament, adopted and acted upon the doctrine that issues by the Bank upon the discount of mercantile bills are more immediately under the power and control of the Bank, and more capable of being contracted at her discretion, than issues in

any other form, and more especially than issues in the form of advances made to Government.

In the report of the Commons' Committee (1819), the following language is found:

As the notes which are issued by the Bank upon the discount of mercantile bills, revert to them at the expiration of the period which these bills have to run, and which never exceeds sixty-five days, it is clear that that portion of their issues can be extended or limited at their discretion; whilst over the notes which are issued in consequence of advances to Government they have not practically the same control.

In the report of the Lords' Committee (1819), the following language is found:

The issues of notes upon discounts, revert to the Bank at periods so short, that any reduction of the paper discounts, which circumstances may render necessary, is always within their reach; with this control over their issues, they are enabled to feel their way, and to restrict or enlarge them, either as the wants of the country may permit or demand, or as the state of the exchanges and the price of gold may appear to direct.

In England sixty years ago, as is thus shown, nearly all the parties agreed in adopting three doctrines about the currency:

First—That if bank notes were issued on discounts of commercial bills, they might be "*extended or limited at discretion*," and that bank managers could "*restrict or enlarge them as the wants of the country may permit or demand*."

Second—That nothing is needed to keep the currency in a proper "*state of regulation by its ancient metallic standard*," except to insure its continuous convertibility into coin.

Third—That such continuous convertibility is sufficiently insured, if bank loans to the Government are kept within due bounds, and if a good proportion of bank assets consists of commercial paper maturing within short periods.

The last-named of these three doctrines is undoubtedly sound, and is confirmed by British experience under the legislation of 1819. After the resumption of 1821, and until the method of regulating its note issues was fundamentally changed in 1844, the Bank of England had maintained coin payments uninterruptedly, and nothing had occurred to shake confidence in its ability to maintain them indefinitely, except under such extraordinary conditions as never are and never ought to be taken into account by legislators. It had been able to do so, notwithstanding the facts, that about the equivalent of its entire capital was locked up during the whole time in the permanent loan to the Government, known as the "*Dead Weight*," and that the resumption of payments in 1821 was in gold and not in coin, whereby it lost the important facilitation of having recourse to either of the precious metals in cases of emergency. The "*Dead Weight*" of the Bank was so much reduced, and its available assets were therefore so much increased, by the legislators of 1819, that its power to maintain specie payments as a

question of mere power and without reference to the consequences to the public of exercising the power, proved as complete as they anticipated it would be. In that particular, they made no mistake, and the wisdom of their plan was vindicated by the practical working of it.

Nor can it be doubted in respect to banks anywhere, if their capital is real and not fictitious at the outset, and if it is not converted into unavailable forms by needy and borrowing governments, but is kept in quickly realizable assets, that they will, with any ordinary degree of honesty and care in their management, be able to maintain specie payments. They could do so, even if they discounted no commercial paper, but made all their investments in the purchase, with equal honesty and care, of stocks and bonds, inasmuch as such investments are promptly realizable by selling them. They are more likely, however, to maintain specie-payments if their assets consist of commercial paper, the loss of enforcing the payment of which falls upon others, whereas the loss by a forced sale of stocks and bonds in times of monetary stringency would fall exclusively upon themselves.

As a general fact, the convertibility of the bank-note currency, and its consequent parity in market value with the metals, have been steadily

maintained in the United States. Individual cases of bank insolvency have occurred, but the Bank paper kept in use as money has been ordinarily redeemed in coin. The first general suspension occurred in August, 1814, within the week following the British success at Bladensburg, and the immediately subsequent capture and burning of Washington. This suspension was not universal, because it did not involve the banks in the New England States, then containing a much larger proportion of our population and inhabited area than they now do. There was a general resumption in February, 1817. The next suspension (this time universal) was in May, 1837, but it lasted only a year. The banks south and west of New York were involved in temporary difficulties, consequent upon the breakdown of Biddle's insolvent U. S. Bank in October, 1839, but the third general suspension did not occur until 1857, as the result principally of a panic, and it was followed almost immediately by a resumption. The last suspension was caused by the outbreak of the Civil War. All these suspensions were sustained by public opinion when they occurred, and they were in truth not fairly chargeable to any special misconduct on the part of the banks themselves. The general cause in all the cases was radically erroneous legislation, while in two of

the cases the co-operating causes were overwhelming public calamities.

It turned out in the practice of the Bank of England under the legislation of 1819, as it has turned out with banks always and everywhere under similar legislation, that the power to collect its maturing commercial paper, and to restrict or absolutely refuse new discounts, although perfectly efficient to protect its own safety and to maintain its own payments, was ruinous to everybody else.

In testimony given in 1828 before a British Parliamentary Committee, Alexander Baring said :

A sudden change from peace to war, a bad harvest, or a panic arising from overtrading and other causes, immediately impose upon the Bank of England, which is the heart of all our circulation, for the purpose of protecting itself, to stop the egress of specie ; sometimes even to bring large quantities into the country. These remedies are always applied with more or less of restriction of the currency and consequent distress. No care or prudence can enable the great Bank to avoid occasional resort to those measures of defence.

Lord Overstone (*Management of the Currency*, 1840) says :

Against the actual exhaustion of its treasure by a drain through the foreign exchanges, the Bank under almost any circumstances has the power of protecting herself ; but to do this she must produce upon the money market a pressure ruinous from its suddenness. *She must save herself by the destruction of all around her.*

And further on, he says ;

Had an internal drain upon the Bank sprung up during the months of August, September, or October (1839), when her store of specie was reduced to a very low amount, it is impossible to say what consequences might have ensued. The convertibility of the notes might possibly have been maintained, but it would have been by the force of measures pressing with ruinous severity upon all parties dependent upon, or in any way connected with, the money market.

He also says :

The abstract possibility of contracting issues by an absolute refusal of discounts, cannot be doubted ; the real practicability of such a step as a measure of business is, however, much more questionable.

Eight years before Lord Overstone wrote in this way, and only thirteen years after the legislators of 1819 had agreed upon commercial bills as the true basis of the convertibility of bank notes, we find the Managers themselves of the Bank of England declaring, that after a full trial they believed that a diminution of discounts was the worst possible way in which to bring about that contraction of the circulation which it was occasionally necessary to bring about by some method, in order to ensure its continued redemption.

Before a British Parliamentary Committee, in 1832, Horsely Palmer, Governor of the Bank, was asked—

Do you not hold that the discount of private paper is one of the worst means which the Bank, as a bank of issue, can adopt for regulating its issues?

He answered :

Yes, provided they are adequately supplied with other marketable securities.

To another question, he answered as follows :

It is not deemed to be desirable to attempt to regulate the amount of issues of the Bank in London through commercial discounts. . . . To be compelled to limit the quantity or description of bills to be tendered for discount, either of these measures would be equally detrimental to the commerce of the country.

Mr. Ward, one of the directors of the Bank, being asked what he thought was the best means of contracting the amount of bank notes in circulation, in order to meet an adverse condition of the foreign exchanges, replied :

I have always endeavored that the Bank should be possessed of a certain number of securities coming in to it. The dead weight, the annuities, bring in a considerable excess annually, and I should withhold the re-issuing of those securities. I should not make a forcible operation by disappointing any person of discount.

Mr. Norman, another director, was asked :

Are you of opinion, supposing a large quantity of commercial paper could be obtained for discount in London, it would be desirable for the Bank of England to regulate its issues upon commercial paper solely, or would it be preferable to regulate them by Exchequer bills ?

He replied as follows :

I certainly think, that if the issues were to be regulated one way or the other, I should much prefer Exchequer bills. Under present circumstances, I consider it quite impossible, without at times doing immense mercantile mischief, to regulate them by discounts.

And in reply to another question, he said :

I consider the attempt to reduce discounts in general, by

rejecting the bills of any particular persons, as a plan likely to fail, and to be productive of great inconveniences, and that it ought never to be adopted except in cases of the very last necessity.

This conversion of the Managers of the Bank of England in 1832, to the theory that the best resource wherewith to redeem circulation, when it is in the process of contraction, is found in the sale of Exchequer bills rather than in a reduction of the discounts of commercial notes, is in curious contrast to what is taught by financial *doctrinaires* in the United States at the present time, that the National Government has no such efficient means to meet the varying contingencies of a redeemable currency as banks possess in their bills receivable. But the government can never lack Exchequer bills, that is to say, Treasury obligations, because it can create them in any quantity and in any form at its pleasure, and it possesses an impregnable credit. So far as the power of providing instantly and under all circumstances for the coin convertibility of circulating notes, the Government enjoys immeasurable advantages over any banks, either existing, or possible to be established. At the worst, the money market could never be any more straitened by Government borrowings, than by an equal diminution of bank discounts. While there are the same fatal objections to a Government redeemable paper, not

representing coin, dollar for dollar, as there are to such paper when issued by banks, it is plain that the Government has superior power to redeem it, and can redeem it with no greater injury to other interests. Furthermore, and this is an important consideration, it is not possible to conceive of runs upon the U. S. Treasury from mere panic, to which really sound and well-managed banks are occasionally subjected and are always exposed.

The question of preference between a contraction of discounts and a sale of securities, as a means of contracting an excess of redeemable circulating notes, closely resembles the question of preference presented in the familiar story of two roads to the same place, both of them intolerably bad, and in respect to which it was said that whoever took either would be sorry, before he completed his journey, that he had not taken the other. If, during their first experience in maintaining coin payments after the resumption of 1821, the Managers of the Bank of England had effected that contraction of issues which the redeemable bank note frequently requires, by means of selling Exchequer bills, they would have concluded in 1832 that that was "*the worst means*" by which it could be done. The truth is, it would have been neither better nor worse, so far as injury to

the public and to trade is concerned, than the method actually adopted, of cutting off or diminishing discounts. When the British currency by reason of too large issues of Bank of England notes, became redundant relatively to the currencies of other countries, so as to cause an export of gold, the only possible remedy was to contract the currency and thus make money scarcer and the prices of commodities lower. That remedy, reaching all classes and every ramification of industry and trade, equally affects and is equally disagreeable to the great body of the community, whether the Bank recruits the proportion of its cash to its debts by selling Exchequer bills, or other salable securities, or by reducing its discounts. The choice of the methods could, at the most, make a difference only to the comparatively few merchants who ever obtain discounts from the Bank, and even to them the difference is much less than it might appear to be at first sight. If discounts to them were continued, the rate of discount would be higher, and they could not escape their share of the general losses from the fall in prices, stagnation of trade, and increased number of insolvencies, which necessarily attend a contraction of the volume of money, however it is brought about.

The views held by the Managers of the Bank

of England, in 1832, that realizing public securities is a better method of bringing it about than a contraction of discounts, has been more or less acted upon by that institution ever since. A recent case of that kind is shown in the following from the London *Economist* of November 12, 1881 :

The Bank is believed to have had at least £500,000 (\$2,500,000) of the Treasury bills due on the 10th instant, and does not appear to have taken any of the new ones. *It has acted with judgment in taking money from the outside market in this manner.*

The fundamental errors of the British legislators of 1819, and from the consequences of which there was no escape, were, that convertibility was the only thing needed to make bank notes a sound currency, and that so long as they were based upon readily realizable assets, so as to insure their continuous convertibility, the expansions and contractions of their volume might without injury to the public be left to the discretion of persons in whom were united the wholly different and incompatible functions of creating money, and of lending and managing money, as bankers.

Of the resumption of 1821, which was the result of these errors, it is as clearly established as anything can be established historically, that, without taking into account the fearful ruin of the contraction of money and fall in prices

which occurred at the time of the resumption and during the preparations for resumption, it gave to Great Britain down to 1844 a currency immeasurably worse, more wildly fluctuating, and producing greater inflations and depressions of prices, than it had had under the preceding twenty-four years of suspension of coin payments.

After all the light which history, experience, and reason have shed upon the plausible, yet intrinsic, absurdity of redeemable bank notes, based upon assets supposed to be promptly available but not representing coin, the currency of this country is not only not yet purged of that poisonous and deceitful element, but present indications threaten its enlargement. The fallacies upon which that mischievous system rests are still currently taught, and it is lamentably true that they have to-day nearly or quite as strong a hold as they ever had upon both the people and the banking classes in the United States.

A New York City bank President, who was elected President of the American Bankers' Convention at its session in Saratoga in August, 1881, signalized his accession to that representative position by an address, in which he proclaimed his unshaken adhesion to all the errors of the British legislators of 1819, although they

have been exploded by British experience, and were finally abandoned in England more than a generation ago. He declared that "*commercial assets*," as "*the basis of currency issues*," were "*the most natural, useful and reliable foundation*" for them; that such issues needed no other restriction except that they should "*be limited to a sum equal to one-half or three-fourths the cash capital paid in*," which, of course, may be any number of milliards; that the "*highest commercial instinct*," whatever that may mean, "*practically declares that the business of banking*" on these principles should be allowed "*its natural and full exercise*;" that no provision for "*the regular and central redemption*" of bank notes is needed beyond the present deposit for that purpose, which is one dollar of reserve against twenty in circulation; and that subject to being "*controlled and admonished by the ceaseless requirements*" of such a redemption, and subject to the limitation of issues to "*one-half or three-fourths the cash capital paid in*," every bank should "*be free to employ*" circulating notes "*at its own discretion for business purposes*."

CHAPTER XV.

BANK OF ENGLAND NOTES, ISSUED UPON SECURITIES, ARE FIXED IN AMOUNT AND NOT CONVERTIBLE INTO GOLD. THE CONVERTIBLE PART OF ITS NOTES REPRESENT AN EQUAL AMOUNT OF GOLD IN RESERVE.

THE Act of July 19, 1844, made an entire change in the rules governing the issue by the Bank of England of circulating notes. This Act has not since been changed, and is still in full force.

Its essential principle is, that it creates an "*Issue Department, to be kept wholly distinct from the general banking business*" of the Bank.

It requires the Bank to transfer to the Issue Department "*£ 14,000,000 of securities, of which the public debt due to the Bank shall be and be deemed a part,*" together with all the coin and bullion not required in the Banking Department, and it provides that thereupon "*there shall be delivered out of the Issue Department*" an amount of notes equal (with those already outstanding) to the aggregate of the securities, coin and bullion, transferred to the Issue Department. This

being done, the Act declares that "*the whole amount of the Bank of England notes shall be deemed to be issued on the credit of such securities, coin and bullion, so appropriated and set apart,*" and that the Banking Department, receiving the notes, may issue them "*in the same manner in all respects as such issue would be lawful to any other person or persons.*" It further provides that anybody may demand notes of the Issue Department, on a tender of standard gold at £3 17s. 9d. per ounce, the value of it at the mint being £3 17s. 10½d., and the small difference being an indemnity to the Bank for the loss of time in procuring the coinage of the metal.

At the date of the Act, what is called in it "*the public debt,*" and which is commonly called the Dead Weight, was £11,015,100, and is not understood to have since changed. It is not a negotiable security, in the sense in which that term is applied to the Consols and Exchequer bills, of which the Bank is always an owner and frequently a large owner.

Lord Overstone, who had more to do with devising the plan of the Act of 1844 than anybody else, said in his evidence before the Lords' Committee on Commercial Distress in 1848:

The framers of the Act of 1844 looked at the returns of the state of the circulation through past periods, and they found that the lowest amount to which the circulation had ever been reduced, would allow £14,000,000 of notes to remain

with the public, and also an adequate quantity to supply the banking till of the Bank. For instance, assuming that the circulation had never been reduced so low as £17,000,000, and also assuming that it never will again be reduced lower than it has been reduced, they came to the conclusion that in the worst of circumstances we may safely have £14,000,000 unrepresented by bullion, and three or four millions in the banking till. The Act is based upon the belief that long before the notes were reduced to the amount supposed, there would be such an action upon the foreign exchanges as would cause bullion to come back to the country.

Before the Commons' Committee on same subject, in the same year, he said :

The bullion cannot, under the Act, be drained so low as to afford any plausible ground for apprehension of the convertibility of the note.

In brief, the Act of 1844 combined precisely the principles which he had been advocating for several years before it was passed, and which he expressed in the following language in 1840 in his tract on the *Management of the Currency* :

Nothing more sound in principle, nothing more safe in practice, than to invest a certain portion of the proceeds of a national paper currency in fixed securities and to retain the remaining portions in coin or bullion ; taking care that the proportion shall be so fixed as to have the bullion sufficient to meet all the usual, and indeed all the reasonably possible, fluctuations of amount.

In his examination in the same year (1840), before a Committee of the House of Commons on Banks of Issue, the following question and answer are found :

Question.—If the whole issues of the country were under that sort of regulation which you would recommend, the ex-

portation of six millions of gold from this country would be attended by the canceling only of six millions of notes in the aggregate?

Answer.—Undoubtedly.

The Act of 1844 does not provide that a portion of the Bank of England notes equal to the securities in the Issue Department shall be earmarked as inconvertible, and that the remainder shall be earmarked as convertible. But the effect of the whole Act is to confer the capacity of conversion only upon an amount of notes equal to the coin and bullion in the Issue Department. The notes to be included in that amount are not distinguished by an earmark, but from the nature of the case they are to be those notes which are first presented, and the presentation of which is continued until the coin and bullion fund is exhausted. The circumstance of the first presentation determines which of the notes are convertible as definitely and effectually as an earmark, and none of them are depreciated by being distinguished as inconvertible. To every practical intent, they are all upon a common plane as respects a parity with gold, inasmuch as there is a coin and bullion reserve large enough to meet the utmost quantity which can by any reasonable possibility be presented.

The lowest amount to which the coin and bullion in the Issue Department have ever been

reduced since 1844 was £8,000,000 in 1847, after the drain of gold resulting from deficient crops in England and from the Irish famine. In recent years, with an enlarged population and an increased employment of bank notes, the coin and bullion are considered to be at a low point when they do not exceed £20,000,000. When the coin and bullion amount to £20,000,000, it shows that the demand for Bank of England notes requires a supply of the fourteen or fifteen millions sterling issued against securities, and of twenty millions more issued against metal. It is clear that the amount issued against securities could now be very considerably increased, without any appreciable risk of a demand for their redemption. And if the circulation of four-shilling (£1) notes was allowed in Great Britain as it is in the United States, it is probable that the total issue by all the banks in the United Kingdom of notes not representing gold, might safely be increased from thirty millions sterling, which is the present amount, to eighty or one hundred millions sterling (\$400,000,000 or \$500,000,000). The English are slow in giving up their prejudices, but if the scarcity of gold becomes more severe, the issue of £1 notes may very probably be resorted to as a means of relief. Such notes circulate to-day in Ireland and Scotland, and have

circulated in England within the memory of some living Englishmen.

There is no provision in the Act of 1844 for a sale of the securities against which notes are issued, if the demand for the redemption of notes should exceed the coin and bullion in the Issue Department. Such a provision would have been inconsistent with the theory of the Act, inasmuch as the amount of notes issued against securities was at a limit below the minimum to which the circulation could in any reasonably supposable case be reduced. Furthermore, it was specially provided that three-fourths of those securities should consist of the dead weight, which is non-negotiable and not available as a redemption fund without some new legislation.

Lord Overstone's opinion* that the Bank of

* In his examination (1848) before a Committee of the House of Commons on Commercial Distress, he was desired to direct his attention to "*the liabilities of the Bank as a whole, and its deposits and circulation as a whole.*" In reply to that he said :

Its circulation I do not admit to be part of its liabilities. The notes issued by the Bank of England are no more part of the liabilities of the Bank, than a bank note which I may have issued for the payment of my own expenses. I cannot agree in speaking of the Bank as a whole, because I shall, in so doing, get into confusion; and that only shows how serious the evil is of having the two departments in the same building; the issue department has nothing to do with the Bank of England; the issue department might be at the

England in its banking capacity is under no obligation to redeem any of the notes, is borne out by the two provisions of the Act of 1844 :

First, that the notes shall "*be deemed to be issued on the credit of*" the "*securities, coin and bullion, so appropriated and set apart*" in the Issue Department.

Second, that as to the notes, after they are delivered to it by the Issue Department, the Bank in its banking capacity may issue them "*in the same manner in all respects as such issue would be lawful to any other person or persons ;*" from which it would appear that the Bank, in its banking capacity, is no more responsible for the notes, than any private banker in London would be for any of them which he might happen to issue.

It cannot at any rate be doubtful, that if the note-holders have any claim whatever upon the assets of the Bank in its banking capacity, it is one which must be subordinated to the prior rights of its depositors and other creditors.

But whatever may be the true construction of Treasury, or at Somerset House, or at York ; it has nothing whatever to do with the Bank of England ; the Issue Department has a certain quantity of bullion, and it issues a certain quantity of notes ; the Bank of England has at its command a portion of those notes, and I have a portion ; I do not increase my liabilities by using those notes, nor does the Bank of England increase its liabilities by using those notes.

the Act of 1844 as to the liability of the Bank, in its banking capacity, for the notes, it is true that their currency and value would have been in no degree impaired, if the Act had expressly negatived any such liability. Nor would they have been impaired if the British Parliament had reserved and exercised a power in respect to the £14,000,000 of securities in the Issue Department, of canceling such of them as were National obligations (as they probably all were), and of appropriating to the public use any other securities (if there were any other), and of substituting its declaration that the nation would be ultimately responsible for such notes as might be presented for redemption after the coin and bullion reserve was exhausted.

In 1840, when the the ideas which finally took the form of law in the Act of 1844 were still under discussion, and had not yet been worked out into all their practical and definitive details, Lord Overstone, being under examination by a committee of the House of Commons on Banks of Issue, pointed out the desirability of "*a self-acting plan for regulating the expansions and contractions*" of the currency, and proceeded to state three possible plans of that kind. The first was to have the currency exclusively metallic, and the second was, to have it "*similar to that of the Bank of Hamburg, which is paper*

notes represented by an equal amount" of metal. These two plans are really only one, as there is no difference, either in principle or in fact, between a circulation of the metals in a corporeal form and their circulation by an effective paper title in the nature of a warehouse receipt. His third plan, he described as follows:

We may suppose a third case, that of the Government of the country issuing a fixed amount of paper upon its own security and leaving all further fluctuations to arise from the issue of notes against the deposit of an equal amount of gold.

To the question whether in the case of such a fixed issue of Government notes not representing gold, he would "*still have them convertible into gold*," he replied that an answer was not essential to the purposes he had in view in suggesting this plan. Nevertheless, he proceeded to make the following observation:

I should think it desirable that they should be convertible into gold; if they were not, you would have to rely upon the fact of the amount of the inconvertible notes issued being below that point to which the gold would never be reduced.

When the time came for the actual framing and passage of the Act of 1844, it was decided that the notes not covered by gold, pound for pound, should be "*below that point to which the gold would never be reduced*," so that a provision for their convertibility was not made, and would have been altogether idle if it had been made.

Without doubt, Lord Overstone saw, upon further reflection, that a fixed issue of Government notes, not representing gold, but promising redemption in it, if the issue was above "*that point to which the gold would never be reduced,*" would have involved precisely the same difficulties and dangers which had attended the system of redeemable bank notes, an escape from which was the sole object of the Act of 1844.

Among the topics discussed before the Committee of the House of Commons in 1848 upon Commercial Distress, was the apparent danger of a bankruptcy as respects its depositors to which the Bank of England was brought in 1847, and the possibility that such a bankruptcy, if it had occurred, might have induced a panic severe enough to have caused an exhausting run upon the coin and bullion reserve of the issue department. That view led naturally to a consideration of the expediency of making the separation of the issue department from the Bank, already complete in fact, so unmistakably clear to the public apprehension, that no disaster to the bank could shake confidence in its issues.

The following questions and answers appear in the examination of Lord Overstone :

Question.—Do not you think it might tend to a more wholesome state of feeling in the public mind, if the issue

of notes were separated from the Bank, and taken out of their hands?

Answer.—Yes, I think so.

Question.—It might be made a department of the State, or some department connected with the State, and kept wholly free of the Bank, leaving to the Bank of England their functions as the bankers of the State, but taking wholly out of their hands the issue of notes?

Answer.—I think the more the management of the circulation is separated from the banking business, not only in reality, but in appearance, the more beneficial it will be to the public interest.

It was only in respect to the currency furnished by the Bank of England, that it was politically practicable for the British legislators of 1844 and 1845 to proceed strictly upon principle. In respect to the country banks in England and Wales, and in respect to the Scotch and Irish banks, they were obliged to respect certain existing interests and facts. They took precaution, however, against any more embarrassments of that kind, by absolutely prohibiting the issue of circulating notes to any parties not then issuing them. The maximum of the circulation of each of the English and Welsh banks was by the Act of 1844 fixed at what it had been on the average of the twelve weeks preceding the 27th of April of that year. By Acts passed in 1845, the maximum circulation (not covered by gold) of each of the Scotch and Irish banks was limited to what it had been on the average of the preceding year. Neither of

these limits was so close as that imposed on the Bank of England, which was fixed, as appears from the statement of Lord Overstone, at £3,000,000 below the lowest point to which its circulation had ever fallen.

The fixed issues of the English and Welsh country banks and of the Irish and Scotch banks are not based upon securities specially set apart for that purpose. The right to circulate notes in excess of the fixed issue, provided such notes in excess are covered by gold, pound for pound, is given to the Scotch and Irish banks, but not to the English and Welsh country banks. It is doubted by many British writers upon such subjects, whether the gold upon which the Scotch and Irish banks may and do circulate notes in excess of their authorized fixed issues, but which is kept in their own possession, is so set apart that the holders of such notes in excess can enforce a priority of lien upon it. That, however, is only a question affecting the security of such note-holders, and not the more important question of the volume of the currency, if the gold, the actual setting apart of which in the first instance is verified by official examination, remains set apart afterwards. On this last point there is unfortunately room for some doubt.

Legislating differs essentially from theorizing.

The framer of a theoretical plan has nobody but himself to blame, if it is not symmetrical in all its parts, and if it is not governed throughout by uniform principles. Legislators have no such complete liberty of conforming laws exactly to their own ideas. The restraints upon them are:

First, that it is frequently impossible to procure the majorities necessary for the passage of laws, without concessions to existing interests.

Second, that it is frequently wise to respect existing interests to a certain extent, even when concessions to them are not absolutely required in order to make legislation possible.

The total fixed issues of all the banks and bankers in the United Kingdom, not representing gold, is about £30,000,000, or \$150,000,000, which will seem to be a very small amount, until it is remembered that paper furnishes a much less proportion of the currency in that Kingdom than it does in the United States. It is only in Scotland and Ireland that bank notes of as low a denomination as £1, or \$5, are allowed to circulate. In England and Wales, embracing about three-fourths of the population of the Kingdom, the smallest bank note allowed to circulate is for £5, or \$25. The actual circulation is therefore largely metallic.

The principle of so much of the British Act

of 1844 as relates to the Bank of England, gives to a mixed currency of paper and metal all the steadiness of volume which an exclusively metallic currency could have. It exempts a mixed currency from all fluctuations of volume except those arising from exports, imports, or domestic production of the metals, and to such fluctuations an exclusively metallic currency is also subject, and in an equal degree.

A mixed currency regulated according to the principle of the British Act would, however, be larger in volume than an exclusively metallic currency. If it would not be, there is no reason for laboriously and carefully constructing a machinery for the issue of notes upon securities, and there is no reason why the currency should not be left to consist exclusively of the metals, circulating either in the corporeal form or by paper titles absolutely representing them. On this point of the magnitude of the volume of currency under the Act of 1844, Lord Overstone exhibited a very remarkable persistency in error. He maintained throughout the whole discussion preceding and following that Act, that it gave to England the same amount of currency as it would have with the use of gold only. As late as January, 1857, he wrote to the *London Times* as follows:

The great laws which determine the monetary equilibrium

of the commercial world assign to this country a certain amount of money. No internal arrangements to which we may resort can alter or suspend that law. We may determine for ourselves what proportion of that amount of money shall exist in the form of notes issued upon other security than that of bullion, and what amount shall be issued upon bullion; but beyond this our power does not extend.

* * * * * The exclusive purpose of the Act of 1844 is to make our paper money correspond in amount and in volume with what, in the absence of paper issues, would be the metallic money of the country.

What "*the great laws which determine the monetary equilibrium of the commercial world*" actually assign to Great Britain at any given time, and under all the circumstances of such time, is its proportion of the money of the world kept at the metallic standard. If this total money should be suddenly doubled by an extraordinary out-pour from the mines, the proportion assigned to Great Britain would not be changed, but the absolute amount would be doubled. And in like manner and from the same reasons, if the total money was increased by the addition to the metals of paper kept at a parity with the metals, either in Great Britain or in other countries, or in both Great Britain and other countries, the aggregate amount of money assigned to Great Britain would in the end be correspondingly increased. The level of the currencies of countries on the metallic standard, is, of course, temporarily disturbed by new supplies

of metal from mines or by new issues of paper, because such new supplies and new issues must necessarily make their first appearance at particular local points, but the fluidity of money soon restores the level.

If the question of the volume of money and of the scale of prices, had been approached in 1844 in England as an original one, and without reference to a pre-existing volume of money and a pre-existing scale of prices, it would have been of no consequence what volume of money was determined upon, inasmuch as current exchanges can be as well effected in England and everywhere at one scale of prices as at another. But a pre-existing scale of prices was a fixed fact in the English situation in 1844, and it was the most dominating of all the facts of that situation. To have reduced that scale, by reducing the volume of money to what it would have been if exclusively metallic, would have been as ruinous to Great Britain as was the resumption policy of Peel in 1819, which, by a single fatal blow, narrowed the currency, and at the same time substituted for a tolerably steady inconvertible money, a system of bank notes, the amount of which from time to time had no other regulation than such an elastic relation to specie as results from mere redeemability.

The Act of 1844 substituted a steady currency for a fluctuating one, but did not change what had been after 1821 the average volume of the currency of Great Britain, and especially it is not chargeable with the folly and injustice of reducing the volume to what it would have been if British money had been made exclusively metallic.

Such a policy of contraction would be even more disastrous in this country, where nearly the entire currency has been during this century paper not representing specie, than in England, where the currency has been largely metallic since 1821.

It is the opinion of some respectable British writers, that the introduction of the bank-note system into Europe during the eighteenth century, affected the volume of money as much as the production of the American mines did during the preceding two centuries, and that it was by this addition of bank notes that the currency of Europe was then saved from a severe contraction and its prices from a heavy fall. British writers would naturally exaggerate the extent of the addition, and therefore the degree of effect produced by it.

The addition was really very great in England and Scotland, where for some time bank notes were issued for as small a sum as one shilling,

thus expelling the metals entirely from the circulation. But the redeemable bank-note system obtained no permanent or extensive foothold on the Continent of Europe during the eighteenth century. In Holland and Hamburg, there were no bank notes except such as actually represented an equal amount of specie. In France, the first institution issuing redeemable bank notes on the plan so long a favorite one and still having many adherents in this country, was that established by John Law in 1719. Its complete ruin within three years so discredited that species of money in France, that it was not until 1776 that another new bank of issue, the *Caisse d'Escompte*, was tried there. It had a short and flickering existence, and was definitively suppressed by the National Convention in 1793.

At the present time, the money of the commercial world is so much enlarged by the addition of paper, kept at a parity with the metals either by a limitation of quantity, or by redeemability, that any general movement towards an exclusively metallic currency, would be ruinous and impossible. The indications point to an increase of the proportion of paper, rather than of the proportion of coin. France is now enlarging its paper issues, as a remedy for an export of gold. Great Britain can at any time, by authorizing £1 notes, treble its present fixed

issue of \$150,000,000 of inconvertible paper, without disturbing its parity with gold.

CHAPTER XVI.

GREENBACKS AND BANK NOTES MUST BE TREATED AS AN AGGREGATE. A FIXED PART SHOULD BE INCONVERTIBLE, AND REMAINDER REPRESENT COIN, DOLLAR FOR DOLLAR. QUANTITY OF MONEY NOW USED IN THE UNITED STATES.

It may be regarded as the settled judgment of the people of the United States, that the money of the country, whether metallic or paper, ought to be exclusively under the control of the National authority, and that a just construction of the Federal Constitution places it there. Although the nation exercised this exclusive control for the first time on the 3d of March, 1865, by the imposition of a prohibitory tax upon State-bank issues, it had always been the opinion of the soundest statesmen, that such issues practically nullified the admitted powers of Congress in respect to coinage and the currency. State-bank notes were tolerated so long, only because they were in actual existence, and on account of the difficulty of getting rid of

them and of agreeing upon a substitute for them.

Money is essentially a matter of National concern, because it ought to be current without discount or premium, everywhere within the limits of the same country, and especially in such a country as the United States have become within recent years. *

In the earlier history of nearly all European countries, the coining of money was practiced by the feudal barons, and mints did not become National until the authority of the central governments became real and effective.

In this country, the issue of paper money belongs of right exclusively to the nation, and should not be left to any other authority, and still less to private persons, or associations of private persons, if the question could be decided

* The President of the American Bankers' Convention (session of August, 1881) well observed:

"A great change has taken place in the commercial conditions and relations of the various States to each other and to the country at large. States once comparatively isolated have become interlocked with the others by railroads and modern motors, and sections once distant and almost exclusive in their local trade and currency, are now so banded together by commercial ties and easy modes of social intercourse, that local interests, formerly restricting them, no longer exist. Modern commerce knows no State lines. . . . Currency notes, once emitted anywhere within the States of the Union, diffuse themselves among the people of the broad land and become practically National."

as an original one, and free from embarrassments arising from the actual existence of paper from other sources. The issue of circulating paper is as much the creation of money, as the minting of gold and silver, and is one of the essential attributes of sovereignty. And so far as such an issue is profitable to the issuer, as it is to an important extent, such profit clearly belongs to the nation, and cannot rightfully be given away as a matter of favoritism to specified individuals, or classes of individuals, who may happen to be possessed of certain amounts or particular kinds of wealth, or who may happen to be able to furnish such securities as may be required for the redemption of paper.*

In the actual circumstances, we must take into account the fact that we have in existence about

* The profit to be derived from a paper circulation legitimately belongs to the Government.—(Lord Overstone's *Management of the Currency*, 1840.)

To whose benefit ought the proceeds of a paper issue to be appropriated? To whom do the profits properly belong? Surely to the nation at large.—(Lord Overstone's *Letters to J. B. Smith*, 1840.)

The British legislation of 1844 adopted the foregoing principles laid down by Lord Overstone. While it did not disturb the Bank of England's enjoyment of the profits of the fixed issue of paper which was determined by the amount of its own previous circulation, it required the payment to the Government of the entire net income of the securities upon which it might thereafter make additional issues, deducting only the actual cost attending such additional issues.

2,200 National banks, with an effective circulation of about \$330,000,000, and the aggregate of whose loans on the first of October, 1881, was 1169 million dollars. It is plain that a system like that, with such ramified and extensive connections with all the great industrial and mercantile interests of the country, must be dealt with in a cautious and conservative temper. The English bank legislation of 1844, and the more recent example of the reform of the paper currency of the new German Empire, suggest the general principles which should govern the treatment of the American National banks. It was believed in England and Germany, that it would be better to have the paper money provided by one central issuer, so that the limits of the issue could more easily be made to conform to a uniform and defined system. Nevertheless, the rights of issue of country and provincial banks, as then existing and as then actually exercised, were not interfered with. In neither country, however, were any new banks allowed to create circulating paper money, nor were the old banks allowed to increase their creations of such money. In both, the issues of these county and provincial banks were left to disappear gradually, with the vicissitudes of affairs, by insolvencies, by voluntary surrender, and otherwise, provision being made that as

they successively lapsed, the right to them should revert to the central issuer.

To apply the principle of the British Bank Act of 1844 to this country, we must first determine what is the lowest amount to which it is "*reasonably possible*" (to quote Lord Overstone's carefully considered phrase) that the paper money in the United States can be reduced, or in other language, what amount of such money will remain in circulation and not be presented for redemption in coin in any condition of things which can reasonably be apprehended. For that amount of paper, dealing always with the greenbacks and the National-bank notes as one mass, no provision for redemption should be made. Furthermore, no redemption of that amount should be permitted, if in any extreme possibility, such as the case of an unfounded panic, redemption of any part of it should happen to be demanded. For all paper in excess of that amount, still dealing with the greenbacks and the National-bank notes as one mass, coin should be held in reserve, dollar for dollar, so that the presentation of the paper for redemption should involve no destruction of money, but leave the amount in existence precisely the same as it was before. This reserve of coin should of course be held by the Government, which is already, under

present laws,* as much responsible for the bank notes as for the greenbacks, and which was always morally and politically responsible for the condition of the currency, and must ever remain so.

Under this system, there could in no case, or contingency, be such a thing as a diminution of money by its destruction, which is an unavoidable incident of the redeemable bank-note system. There would be more money in the country, when gold and silver flowed in as a consequence of a favorable balance of foreign trade, or to the extent that such a favorable balance made it possible to retain the production of our own mines. There would be less money in the country, when an unfavorable balance caused an outflow of the metals in excess of their domestic production. Even in this last case there would be no destruction of money, and no diminution of the money of the world, but only a transfer of money from this to

*See sections 5227, 5229, and 5230 of U. S. Revised Statutes (of 1874), by which it is made the duty of the U. S. Treasurer to redeem in lawful money, the notes of an insolvent National banking association. For the purpose of subsequently indemnifying the United States for such redemption, the Comptroller of the Currency may, at his discretion, either "*cancel an amount of bonds pledged by such association, equal at current market rates, not exceeding par, to the notes paid,*" or^u sell the bonds at auction in New York, giving thirty days' notice of the sale.

some other country, or countries, where it would perform the same office of upholding the general prices of the world as it had previously performed here. Under this system, the fluctuations in the volume of our money, in the times of their happening, in their degree and extent, and in their effects, would be precisely the same as if it consisted exclusively of the metals.

So far as the proposed system involves changes in the present mode of coin redemption, no new responsibility is thrown upon the Government, while the banks may be relieved from certain risks, in respect to which paramount public interests require that they should be relieved. Their existing obligation to keep a redemption deposit in the United States Treasury, equal to five per cent. of their circulation, is a trivial matter at the most, and may well enough be left as it is. Only such changes should be made as are imperatively called for, and none should be made merely for the sake of giving to all the details of a system an exactly logical and theoretical symmetry. The change needed is in the methods now authorized to be pursued in the cases of the insolvency of particular banks, or of an extensive or universal suspension of payments by them. In both cases, the banks are exposed to a summary sale, at no

matter what sacrifice, of the Government bonds which they have put in pledge for the security of their circulation, and in both cases, the country would be subjected to the mischief and wrong of a summary destruction of money. It is without doubt true, that that part of the present National banking law would be found impracticable of execution if a general stoppage of payments by the banks should occur, and that in such a case the law would be suspended or repealed. No sum of money approximating the present aggregate note circulation of the banks can be abruptly destroyed in this country, and if it could be, the consequences would be ruinous. The temporary locking up of only eighteen million dollars in February, 1881, by the deposit of greenbacks in the United States Treasury for the retirement of National-bank circulation, forced up the borrowing rate for money in Wall Street to one per cent. per day. The whole machinery at present devised for the redemption of bank notes, would be found, in the event of any serious emergency, to have been made for show and not for use. It bristles with impossibilities in every part of it. If all the Government bonds now in pledge for the bank circulation, or even one-fourth of them, were suddenly thrown upon the market *en masse*, they would not sell for enough to re-

deem the notes for which they are the security, while the banks themselves would be subjected to an enormous loss. If the banks cannot redeem their notes, the Government should substitute for them its own notes, and increase their issue to that extent, so that the volume of money may remain undisturbed. As to the bonds deposited with the United States Treasury by the banks, if the Government does not choose to take them at the current market rates and cancel them, it should only dispose of them at such favorable times and in such suitable quantities, as will protect the banks against any avoidable sacrifices and safeguard all the public interests which are involved. The total quantity of paper, greenbacks and bank-notes together, against which coin is not held, should in no case be diminished, but provision should be made for an annual addition to it proportioned to the increase of the population of the country.

As to the proper amount of the issue of paper in this country without any provision for its redemption in coin, it must be determined by deciding, *first*, how large a volume of money, at the metallic standard, the United States are entitled to under the laws which distribute such money among the different countries of the world, and *second*, what proportion of the money

of the country may be paper, without any provision for its redemption in coin.

The average amount of money, at the metallic standard, which any country can have consistently with the necessary international equilibrium of currencies and prices, is not determined merely by population, but by many other circumstances, such as the extent of the exchanges of trade, the diversification of industries, the greater or less prevalence of the practice of hoarding money and the greater or less resort to economizing expedients in the use of money. Countries producing more gold and silver than they consume, will have on an average a volume of money and a scale of prices as much in excess of the general level, as will produce that outflow of the metals which is a constant fact in the condition of mining regions. Countries like India, Ireland, and the United States, owing and paying a tribute to foreigners, as interest upon loans, profits of investments in railroad and other enterprises, or as the rental of lands, will have on an average a volume of money and a scale of prices as much below the general level, as will produce that excess of exports over imports of merchandise, by which alone foreign claims can be satisfied. Very probably, some of the causes which determine the proportional distribution of money

among different countries, are so subtle and obscure that they escape observation. But there is, fortunately, never any serious difficulty in determining whether the currency of the United States, or of any country, is in excess at any given time. The simple and true test of the question of excess or deficiency in our currency, is the course of our foreign trade. That shows whether our prices are too high, or too low, or at the proper level relatively to the prices of the world. So long as the balance of trade is sufficiently large to meet the claims which foreigners have upon us for the use of the capital borrowed of them in various forms, we may be sure that our prices are not too high relatively to prices elsewhere, or, to express the same thing in other words, that our currency is not too large relatively to foreign countries. Except to the extent of the disturbing fact, that the metals sometimes flow in or out, not as a consequence of deficient or excessive currency, or of prices too low or too high, but of the movement of the various stocks, bonds and securities which are dealt in internationally, we might determine the level of currencies by the quiescence or movement of the metals, just as we determine that water is at a level when it is not in motion, and decide which part of the surface is the highest when we observe in which

direction the water runs. An international equilibrium of currencies is not an equality *per capita*, nor is an international equilibrium of prices an equality of prices of the same things, which last condition, if it existed, would put a final end to any international trading whatever. The currency and prices of a country are at an equilibrium with the currencies and prices of the world, when the balance between its merchandise exports and imports is such, that there is no movement of gold and silver inwards or outwards, except as the consequence of its producing either more or less of the precious metals than it consumes in the arts and in the wear and loss of coins, or as the consequence of the movement inwards or outwards of international securities.

Applying these principles to the facts of the existing condition of this country, we may conclude that our currency is now not far from the point of equilibrium with the currencies of the nations with which we have commercial intercourse.

The National-bank notes, deducting those whose withdrawal is provided for by deposits of money for that purpose, amount to about \$330,000,000. On the first of November, 1881, the full-tender silver (dollars) amounted to \$100,000,000, and at the same date, according to

the Director of the Mint, there was \$563,000,000 of gold, including coin and "*bullion at the mints and assay offices available for and awaiting coinage.*" From this total metallic money of \$663,000,000, there should be deducted \$139,000,000, the coin reserve held for the redemption of the greenbacks and \$17,500,000, the cash reserve held in the United States Treasury for the redemption of National-bank notes. This would make the total full-tender money in circulation November 1, 1881:

Greenbacks	\$ 347,000,000
National-bank notes	330,000,000
Gold and silver coins.....	506,500,000
	\$ 1,183,500,000

The Mint estimates of the gold in the country are commonly regarded as somewhat too high, and probably are so, and the figures of the greenbacks and National-bank notes are subject to the deduction of such amounts of either as have been destroyed or irretrievably lost during the twenty years that they have been in use. In round numbers, the circulation in November, 1881, exclusive of subsidiary currency, may be stated at 1100 million dollars, or \$21.15 *per capita*, assuming a population of 52 millions. This compares with \$33 *per capita* in France, if we add to the notes of the Bank of France the coin outside of the Bank, upon the estimate

of M. Cernuschi (which is lower than some estimates recently made), that the total full-tender coin in France is \$1,000,000,000. It compares with \$21.43 *per capita* in the United Kingdom of Great Britain and Ireland, if we add to the total authorized issue of £30,000,000 of bank notes not covered by gold, £120,000,000, which is the highest (and probably very much exaggerated) estimate of the gold in monetary use, including what is held in the Issue Department of the Bank of England.

In estimating the volume of the currency, coin and paper together, of this country, some persons, in addition to the proper deduction from the coin, of so much of it as is held in reserve against paper, make other deductions, which are based upon a total misconception of the case. The principal one in amount of these improper deductions, is the reserve of specie in the National banks, which was 114 million dollars in all, October 1, 1881, and probably 110 million dollars of full-tender coins. Another deduction, not so often made, is that of the greenbacks held by the National banks, and which amounted to 53 million dollars at the same date. Both these reserves of the National banks are held under existing laws exclusively against their deposits, while the reserve for the redemption of their notes is held in the U. S.

Treasury. The reserve of 167 million dollars in coin and greenbacks in their vaults is insufficient for their deposits alone, which amounted, October 1, 1881, to 1083 million dollars. It has been sometimes laid down as a rule of sound banking, that the proportion of cash to demand liabilities should be one to three, but in the case of the National banks, throwing their currency notes out of the account, it is only one to six and one-half.

Another deduction sometimes made is the cash in the United States Treasury, over and above the reserve of coin held against greenbacks, and especially such part of this cash as consists of greenbacks.

The persons who make such deductions, are apparently unable to conceive that money is in use unless it is in motion, whereas it is true of all circulating money, that the time during which it is at rest exceeds in an enormous proportion the time when it is being employed in payments or purchases.

Lord Overstone, before the Committee on Commercial Distress, appointed by the British House of Lords in 1848, observed:

It seems to me a fallacy to say that "money in circulation" means only that which is actually in motion; it means that which is used or retained for any of the purposes for which money is required. I believe that the most efficient form in which money can subsist is in banking reserves, far

more than when in the possession of private concerns, or of individuals.

The real condition of nearly the whole of the circulating money of any country, at any given moment of time, is, that it is then "*retained*" in the pockets, tills and safe places of individuals and corporations, and in the vaults of banks and public treasuries, for some or "*any of the purposes for which money is required.*" The amount so "*retained*" will bear a proportion to the extent of the affairs, purchases and payments of the party concerned, whether it is an individual, corporation, or government. The affairs of the United States Treasury being large, the working balance of cash which it constantly requires is correspondingly large, but whether it is large or small it is as much money in circulation, as cash which is "*retained*" anywhere else for "*the purposes for which money is required.*" Nor can it be of any consequence whether the cash in the United States Treasury consists of greenbacks or coin. Greenbacks do not lose their monetary functions by being received into the United States Treasury, and the law imperatively requires that in whatever manner they find their way into it, they "*shall be re-issued, paid out and kept in circulation.*" There never can be any appreciable quantity of them in the Treasury, aside from those held merely

in trust, without an impeachable mal-administration by the official in charge of that department.

Until the country has decided to adopt the substantial principles of the British Bank Act of 1844, it would be premature to discuss the precise proportion of the paper circulation, which should be left to rest upon the general duty of the Government to take care of the currency, but without any coin reserve behind it and without any provision for its redemption in coin, upon the general plan of the "*fixed issue*" of the Bank of England. It should not be any larger proportion than could be safely counted upon as certain to be retained in the channels of circulation in all "*reasonably possible*" contingencies. Nor should it be any smaller proportion than that, in view of the rapidly increasing monetary needs of mankind, the stationary yield of the mines, and the uncertainties which still hang over the final outcome of the efforts to limit the coinages of the commercial nations to a single metal.

The circumstance which most directly affects the proportion of paper which the channels of circulation can retain at a parity with coin, is that of the denominations of money for which it is issued. Under the redeemable bank-note system as existing in England before 1844, the argument was fairly made against small notes,

that they diminished the stock of circulating coin, which was a valuable resource for replenishing the vaults of the banks, when they were subjected to a run for specie. No such argument can now be made in England, as all the notes intended to be redeemed have gold behind them, pound for pound. The "*reserve*" which the Bank of England takes measures to recruit, in the case of its deficiency, has no connection with the gold in the Issue Department. The amount of that metal in the Issue Department is varied only as individuals may happen voluntarily to exchange paper for gold, or gold for paper. No measures are ever taken to recruit the amount when it is falling off. Its ebbs and flows attract little attention, and create no anxiety. The parity with gold of all that part of the paper currency of Great Britain, for the conversion of which it is reasonably possible that demand can be made, would be just as secure if the English banks were allowed to issue £1 notes, as it is now, when none below £5 are issued. But as often happens, English opposition to small notes has survived the condition of facts in which it had its origin. There exists to-day no good reason why the Bank of England should not issue £1 notes, of which the advantages would be many and great. British prejudices on this subject, which have been

characterized by one of their favorite writers as "*absurd*,"* cannot be reasoned with, but they will be given up whenever the constriction of money reaches the unendurable point. In this country, if the method of conforming the paper part of the currency to the metallic standard shall substantially follow the British plan, no good reason will exist for withdrawing the \$1, \$2, and \$5 notes, to which the people are accustomed, and which they very much prefer to coin.

CHAPTER XVII.

VARIATIONS IN THE AMOUNT OF MONEY NOT REQUIRED BY THE MOVING OF THE CROPS. NO PROOF, OR PROBABILITY, THAT THE AMOUNT REQUIRED VARIES, COMPARING DIFFERENT WEEKS, OR MONTHS.

THE most plausible claim made in this country in favor of redeemable bank notes, as distin-

* In England we have a great quantity of gold, because there is an absurd prejudice against the use of one-pound notes, so that sovereigns must be used as change for five-pound notes. In Scotland it is just the reverse, and it is not uncommon for a beautiful gold sovereign to be actually refused, and a one-pound note demanded instead.—Jevons, in 1877, in a paper read before the American Social Science Convention.

guished from the British system of a steady quantity of paper circulation, is their power of elastic adaptation to the alleged greater demand and need for money at certain seasons of the year for the purpose of what is called "*moving the crops.*" Indeed, it seems to be the established doctrine of American financial writers, that the ingathering of agricultural harvests and their movement to markets, which involves and includes their purchase, produce a new demand, not merely for money, in the proper and strict sense of that word, but for loanable capital.

The production of an agricultural crop requires an advance of capital, greater or less, and for a longer or shorter time, depending upon the amount and nature of the crop, but when it is produced and appears in the markets, it is itself capital, and by so much an addition to the floating and disposable wealth of the country. It is not a subtraction from the means of the community, but an enlargement of them, and is a new supply of capital, not a new demand for it. The normal and ordinary condition of the case is, that the crop not only refunds all the capital employed in producing it, but pays interest on that capital for the time it was employed, rent of the land used, and more or less profit. In all these respects, an agricultural crop is on the same footing as any other

production. It absorbs means, either belonging to the agriculturist, or borrowed by him, or partly the one and partly the other, while the process of production is going on, but replaces these means with some addition when the production is consummated. The lumberman absorbs his own capital, or borrows the capital of others, when he is logging and when he is manufacturing his logs into marketable forms of lumber, but when he sells his lumber he replaces his own capital, or repays those of whom he has borrowed capital, and expects to have an overplus of profit, which, if realized, is a newly-created capital. It is the same with the shipbuilder, and with any producer. It is at seed time, and not at harvest time, that demand is made upon capital in agriculture, and in everything else. It is in no other way than by the profits of agricultural crops and of production in mining and manufacturing, that the aggregate capital of a nation is accumulated. If other things remain the same, the demand for capital relatively to the supply of it tends to lessen, as the amount of capital increases with the incoming of the successive crops of the husbandman and with the successive appearance in the markets of other productions.

This was not more true, but more obvious, in respect to the Southern crops of sugar, rice and

cotton, as produced under the old methods existing before the civil war. Planters continued to be to the last as "*poor to a proverb*," as John Adams said they were soon after the Revolutionary War, being as a rule in debt for one crop ahead to the merchants and factors in Charleston, New Orleans, and other Southern cities, the exceptions being as numerous on the side of debts for two crops ahead, as of being free from debt. The marketing of crops was in these cases the period, not of absorption of more capital, but of repayment to the persons who had made the needed advances, and as these persons in their turn were always more or less assisted to make them, by buying on credit of Northern merchants, or by borrowing money of Northern bankers, it was also the period of relief and harvest to such Northern merchants and bankers. But what was obvious in respect to the crops of Southern planters on the old system, is equally true of the present agriculturists of that region, and of the West. Their crops are new capital, for the benefit of themselves and their creditors in varying and conjectural proportions, but always and in any event new capital for somebody, and not a drain of capital.

It is the crops which repay to the seaboard cities the very considerable advances towards

raising them, which they make through indirect channels of internal trade. It is the crops which pay interest on farm mortgages. It is the crops which, through the instrumentality of the tax-gatherer, pay interest on municipal and county bonds. It is the crops which give income to railroad property. In these, and many other ways, they furnish the seaboard cities an annual supply of capital, instead of draining it away. A short experience of the contrary effects of a total failure of the crops, would put an end to any delusions on that point. The effects of the partial failures which sometimes times occur ought to be sufficient to put an end to them. Abundance and prosperity cannot exist in any part of the country, or in any interest, without favorably affecting all parts of it, and every interest in it, and especially is it impossible that the creditor sections should fail to gain by the prospered industry of the sections indebted to them.

When financial writers say that "*moving the crops*" absorbs loanable capital, they mean the purchase of the crops, and not the transportation or forwarding of them to markets. But the literal meaning of the phrase—*moving the crops*—includes the transportation or freighting of them, and it is quite probable that the constant use of that phrase has created a popular

impression that both loanable capital and money are absorbed by such transportation or freighting.

Undoubtedly, freighting Iowa wheat to New York is as much a part of the cost of laying it down there, as the expense of raising it. The demand for capital made by the operation of freighting is real and considerable, but it becomes unimportant, and almost inappreciable, from the circumstance that the time during which capital is thus absorbed is very short. The addition of value to a crop by moving it to its market, is substantially simultaneous with the expenditure involved in moving it. This added value is a new capital, which at least replaces the capital absorbed in making the addition, and this replacement is so speedy that the advances of capital required in the case may be disregarded. And such advances, whatever their importance may be, are made, not by loaners of money, but by railroads and freighters, who do the actual work of transportation before they get their pay for it.

Prevalent modes of expression in respect to crops, sometimes go the length of representing their producers and owners as altogether helpless to move them, unless somebody will come to their relief. A few years ago a deputation of merchants and bankers from South Carolina appeared in New York and represented that

that State was running over with valuable crops, which could not be moved unless funds for that purpose were furnished from the North. No funds were obtained, but the crops nevertheless came forward. There is no known instance of a crop being left behind anywhere, which was worth more in the market than the cost of delivering it there. No bale of cotton ever made its appearance in Charleston, when it was not under blockade, without finding a purchaser, and no bale of cotton ever lacked a carrier to Charleston, if its price in that market was greater than the cost of carrying it there.

The supposed difficulties of moving crops are not heard of after they reach the seaboard. Nobody suggests that there is any difficulty in moving them across the Atlantic. Ships are never wanting in the seaports ready to take wheat to Liverpool, without either advances or security. They are content to collect their freights when they are earned, and the Liverpool purchasers of the wheat, who pay the freights, receive value in hand for what they pay. All the advances made in respect to moving crops across the Atlantic are made by the ship-owner, who is at the charges of running his ship in anticipation of his freights. In long voyages, as in carrying wheat from the Pacific

States to Liverpool, these advances are for a considerable term of time, but carriers on those terms are never wanting. Bankers and merchants are not called upon to make advances for freighting crops, either to the seaboard or to foreign ports.

The attraction between crops and the markets for them is mutual. The markets want the crops, and the crops want markets. It is for markets that crops are produced, and that crops will reach markets in some way is as certain as the descent of fluids down an inclined plane, or as the congress of the sexes. And it is not merely something which will take care of itself if let alone. It is something which cannot be prevented by anything short of the interposition of physical force, and is not easily prevented in that way. That experiment was tried upon the Southern crops during the civil war, but cotton broke through blockades by sea and bribed its way through blockades by land, in no inconsiderable quantities, in spite of all efforts to prevent it.

That the "*moving of crops*," in the sense of purchasing them, makes a demand, and a very large demand for money, is not denied, using the term money here in its strict sense, and not as it is sometimes used, as a convertible term for loanable capital. The purchase of all

productions makes a demand for money, but the agricultural crops of this country are very great in the aggregate, and they are sold by the producers more uniformly for cash, as distinguished from credit, than are the productions of manufacturing industries. In that view, the demand for money arising from their purchase, is one of the most important of all the money demands of the country, but it may appear that it is neither so great, nor so compressed into particular and short periods of the year as it is frequently said to be. The proceeds of the sales of agricultural crops are absorbed, more or less, in the liquidation of the debts of the producers, and the balances of actual cash received for them are ordinarily held by the producers for a very short time only, being almost immediately used by them in purchases and for other purposes. And taking all the crops of the country together, their sales, instead of being compressed into particular seasons, extend through the whole year, although perhaps greater at some seasons than at others.

The farmers and planters of this country, and especially in the newer and more exclusively agricultural portions of it, find that it takes no inconsiderable part of their corps to adjust their store accounts. Doubtless cash balances remain, but they do not hold such balances in strong

boxes until they can deliberately determine whether to invest them in United States or municipal bonds. They have taxes to pay, and mortgages, or interest upon mortgages to take care of. They have buildings to erect or repair, farming improvements to make, and tools and machines to buy. They have ordinarily postponed one or all of these things, only until crop sales should yield means for their accomplishment. They have various purchases to make, and as the desires of mankind always keep even pace with their powers of gratifying them, abundant crops and good prices are hailed as the signal and sure guaranty of a lively trade in merchandise. Farmers and planters are no more hoarders of money than producers of other things, and are quite as likely as other producers to buy as much as they sell.

Producers of particular agricultural crops may sell at special times, but it is true of the aggregate of farmers and planters that they sell continuously. Cotton is principally marketed in one term of six months, and sugar in the next term of six months. Wheat in the Fall; pork in the Winter; wool in the Spring; hay, Indian corn and cattle from January to January; these and other fruits of agriculture make an endless chain of sales, and the more so in modern times, since the railroad has made transportation practicable at all seasons.

It would seem that a proximately correct measure of the amount of money invested in agricultural crops, by the banking and mercantile classes of our seaboard and interior cities at any given time, would be found in the amount of those crops in the cities, and in transit thither. That view of the case will reduce very much the common estimates of the amount of money so invested, and it will reduce even more the common estimates of the variations in this amount, comparing one month with another, or one season with another. This is more especially true of Western crops. New York is the principal receiver of them, but aside from the demands of its own consumption, is a mere gateway, receiving to-day and exporting to-morrow. The stocks held there are never large. Variations in these stocks are not large, and such variations depend less upon the season of the year than they do upon the conditions of the foreign and domestic markets. The crop which varies the most, in the amounts of it held in the cities, is cotton, but in respect to that product it is to be considered that when the amount held in the cities is declining from its maximum, the amount of capital directly or indirectly advanced to planters for the next crop is on the increase.

To assist in effecting exchanges is one of the

offices for which money is intended to be employed. There is no peculiarity in the use of money in purchasing or exchanging agricultural crops, which distinguishes it from its use in purchasing or exchanging anything else. In a country like the United States, where imported commodities and domestic productions are in such variety, and come from so many sources, most of these commodities and productions have some special season when they are brought to the markets somewhat more than at other times, but there is still a tendency to an equable average in the aggregate amounts coming to the markets, comparing one time with another.

It is clearly impossible to prove by any exact data that the monthly amount of money used in this country in purchases is always the same, but it is equally impossible to prove the contrary. Many problems are indeterminable from the multiplicity and fluctuating character of their conditions, and this seems to be a problem of that description. There are certainly two considerations which tend strongly to prove that the amount of money employed in purchases varies but little from month to month. The first is, that there is no probable ground for supposing that the purchase of commodities for personal wants and gratifications varies much from month to month. The second is, that

when purchasing is for reproductive purposes, as of raw materials for manufacturing, the variation from month to month is not likely to be great, when the diversity of productive interests, including agriculture, is so boundless as it is in the United States.

If to any extent, or to whatever extent, it is really true that, comparing particular months or seasons, with other months or seasons, cities have less than their average amount of money and the rural sections have more than their average amount, it by no means follows that the money of the country should be elastic in quantity. Such a conclusion is no more warranted than it would be by the fact that on a particular day some citizens may have parted with all their cash to make purchases of other citizens, which is a fact occurring every day, in instances without number. The result of such transactions simply is, that certain persons have, for the time being, less money, and certain other persons have more. Money is mobile from its very nature, and is performing its proper office when it is passing in the markets from one to another. It has currents and counter-currents, and no movement of it in any direction is a proof that its amount should be changed. If it be supposed, for example, that on the average of the year the cities have fifty

per cent. of the total money of the country, the fact, if it could be established, that during one six months the cities have forty-five per cent. of the money, and during the other six months fifty-five per cent. of the money, would furnish no reason for concluding that the aggregate of money should be a variable quantity.

In England, two facts happen regularly in the autumn :

First, a diminution of the reserve of the Bank of England, which consists (nearly the whole of it) of the circulating notes which it obtains from the Issue Department.

Second, a diminution (ordinarily not large) of the gold in the Issue Department.

The reserve of the Bank of England in the middle of September, and the diminution of that reserve by the middle of November, were as follows in the years named :

	<i>Reserve in Sept.</i>		<i>Diminution in Nov.</i>
1873.....	£ 13,346,843	....	£ 3,644,817
1874.....	12,291,969	....	3,474,250
1875.....	14,788,808	....	4,213,361
1876.....	22,244,069	....	4,373,811

As to the demand for metal at the Issue Department in exchange for bank notes, readers in this country must be reminded that in England gold is not used in large payments, but is required in small ones, as there are no bank notes below \$ 25.

The circumstances of England are such, that nobody there suggests that the Autumn increase of the amount of bank notes outside of the vaults of the Bank of England arises from the moving of agricultural crops. Sales of grain and provisions by farmers in that country are continuous and substantially equable the year round, and agriculture, although absolutely a great interest, is relatively far less important than in this country.

It is a not improbable explanation of what is observed, that the general activities of business increase, and give rise to more demand for money, as the heats of Summer subside. That explanation is, at any rate, as probable as the one most frequently given in this country. The most that can be done, in respect to a problem so essentially and perhaps so hopelessly obscure, is to balance probabilities.

A table now before me of the monthly clearings at the N. Y. Clearing House for six years, shows that the amount regularly falls off after May, and regularly increases after August, but it also shows that they are no greater in the Autumn than in the Spring, and that they do not in the Autumn exceed the average of the year. The accurate description of the case is, not that the clearings expand in the Autumn, but that they shrink in the Summer.

CHAPTER XVIII.

CREDIT IN PURCHASES ONLY POSTPONES THE USE OF MONEY. ERRORS OF JOHN STUART MILL. EXPERIENCE IN ENGLAND AND UNITED STATES SHOWS THAT BANK DEPOSITS DO NOT HAVE THE EFFECT OF MONEY. CHECKS, DRAFTS, AND BILLS OF EXCHANGE DO NOT INCREASE THE VOLUME OF MONEY.

IN the discussions of the currency question in England, which preceded and led to the passage of Peel's Bank Act of 1844, and to some extent since, it has been maintained by one school of economists, that in advanced commercial countries in modern times the principal part of the operations of trade are carried on by credits, bills of exchange, and checks on deposits in banks; that the actual amount of money required for use is very much economized by various expedients, such as bankers' clearing houses, and the quite general practice of depositing it in banks, where it becomes constantly active, instead of remaining idle, as it otherwise would, for a greater or less proportion of the

time, in the hands of its individual owners; that money is thus made the smallest part of the medium of exchanges; and that consequently prices are very little affected by the volume of money, and that neither its actual magnitude at any given time, nor changes in it from time to time, can be matters of any great concern. By this class of economists, credits, bills of exchange, and checks upon deposits in banks, and other similar instrumentalities employed in making purchases and payments, are described, sometimes as substitutes for money, and sometimes as additions to the volume of money.

It is insisted upon by these persons with special confidence that the debt of a bank, evidenced by its books of account with its depositors, is to all intents and purposes the same thing as the debt of the same bank evidenced by a circulating note, and is equally accepted as money, and that the only difference is in the method of transfer, which is by a check in the case of a deposit, and by delivery in the case of a circulating note.*

* It would seem that the character of being money was at first claimed only for deposits in banks having the power to issue circulating notes, and to issue them without limit, and not for deposits with other classes of banks or bankers. That was the view taken in Condé Raguet's book on banking published in this country in 1839. Lord Overstone, who always denied that deposits with any class of bankers were

It is a matter of familiar knowledge that there are a vast number of purchases and payments made in this and other countries without the use of money. This happens in cases of barter, where one thing is exchanged for another. It happens in cases where a debtor sells something to his creditor in partial or complete satisfaction of his debt. It happens in cases of mutual accounts, where money is used only in respect to the balance found due from one party to the other, and where in respect to all other matters and things embraced in such accounts, the payments are made by offsets. It happens when property of any kind is paid for

money, said in 1840, (second letter to Smith) that nobody would think of calling a deposit with a non-issuing bank, or banker, money, or circulation. The idea down to that time would appear to have been, that deposits with a bank lawfully empowered to give its circulating notes for any purpose and to any amount, and of course, for all the deposits which it might hold, were the same thing as circulating notes, because always convertible into them. No such banks have existed in Great Britain since 1844, or in this country since 1865, when the issuing power of the State banks was destroyed by the ten-per-cent. tax on their notes. The National banks have never had any power in that particular, except that of using certain limited amounts of notes furnished to them by the authorities at Washington, and their means of paying their depositors at any given time, do not exceed their cash actually in hand, including such of the notes so furnished to them as they may then happen to hold.

At the present time, those who claim that deposits in banks are money, make no distinction between issuing and non-issuing banks.

by the transfer of Government, municipal, and railroad bonds, or of the debts of third persons as acknowledged by notes, or otherwise. But neither barter, nor offsets, nor public, corporate, or individual debts, are money, or additions to the volume of money, and nothing need or can be said in respect to purchases and payments made in these several ways and in similar ways, except that the use of money has not been required in them. Money has never been defined as being the only thing which can be employed in buying and in liquidating debts, but as something which is currently accepted whenever it is offered in such transactions.

Of credit, it is often said that it performs the offices of money, and thus becomes a substitute for it; that it is as much a purchasing power as money is; that whenever and to whatever extent it is so employed, it dispenses with the use of an equal amount of money, and thereby practically enlarges the circulating medium; and that prices depend quite as much upon the activity and abundance of credits, as upon the volume of money.

It will be convenient in discussing what is thus said about credit, to consider first, its simplest and most common use, which is in the purchase of merchandise and other property. The doctrine, which is largely prevalent, that

credit thus used dispenses with an equal amount of money is laid down by Condé Raguét (*Currency and Banking*, 1839), in the following language:

In a country where no credits, or comparatively few, are given on the sale of property or merchandise, and where consequently payments are made entirely or chiefly in coin on delivery of the articles sold, a larger amount of gold and silver is required, than in another country of equal wealth, population and trade, in which sales are usually and frequently made on credit.

John Stuart Mill (*Principles of Political Economy*) goes much further than Raguét. In Book 3, Chapter 11, he says that "*credit is purchasing power*," and observes in respect to any person buying on credit:

He creates just as much demand for goods, and tends quite as much to raise their price, as if he made an equal amount of purchases with ready money.

And in the next succeeding chapter we find him saying:

The amount of purchasing power which a person can exercise, is composed of all the money in his possession or due to him, and of all his credit.

Prices do not depend on money, but on purchases.

Money and credit are exactly on a par, in their effect on prices.

Comparing the amount of money required in trade in two countries, it can certainly make no difference that it may be the custom in one of them to have money paid down when purchases are made, and in the other to have it paid in

one, two or six months afterwards. In either case the same amounts of money are employed, either sooner or later, and the use of credit has no other effect than to separate the delivery of property and of the money price of it, by an interval of time. Undoubted credit has a command over property, substantially equal to that enjoyed by money; but after all, the purchasing power of men is strictly limited in amount to their means of paying money. Credit merely enables them to make an anticipatory use of their means of paying money. The aggregate purchases in a country over any considerable period cannot possibly be enlarged by the use of credit. A person with a fixed annual income, receivable in equal monthly installments, may by the use of credit spend the income of an entire year during the first half of it, but his total purchases for the year, and for a series of years, are inflexibly fixed by the paying power of his income. The payments which a retail trader, aside from the use of his own capital, can make to the wholesale dealers of whom he buys, are limited to the amount of his own sales. If he has, through the use of credit, bought more at some times than he is selling, he must at other times buy less than he is selling. Mill himself, in the same chapter 12, quoted from above, says:

In the long run, indeed, the money which people lay out will be neither more nor less than the money which they have to lay out.

Credit, although no addition to the purchasing power of persons, does, nevertheless, give them a freedom of option as to the times when they will purchase, which they could not have if purchases required in all cases the payment of money on the spot. On this account, it is quite conceivable, and is probably true, that the use of credit in buying increases and intensifies that part of the fluctuation of prices which results from the oscillations from buoyancy and hopefulness to depression and timidity, which seem inseparable from the constitution of the human mind, and which manifest themselves in the conducting of trade as much as in other affairs of mankind. But the fact that credit used in purchasing produces some temporary effect upon prices, has no tendency to prove that credit so used is money, or a substitute for money, in the sense of causing any diminution in the average amount of money required to be used in purchasing. Nor does the admission of that fact conflict at all with the doctrine that, other things being equal, prices depend upon the volume of money, inasmuch as that doctrine does, by the very statement of it, include a recognition of the condition that other things are not always equal.

Some persons affirm that the granting of credits, in the sense of loans of money, affects prices, but manifestly the exactly contrary thing is true, that prices as actually existing and future prices as forecast and anticipated by those who lend, control the granting of credits, upon either specific pledges of property, or upon the general personal responsibility of borrowers. For what sum of money a piece of property will be accepted as security, depends upon its present market price, and upon the judgment of lenders as to the future course of the market for it. How large sums a borrower can command upon his general credit, will depend upon the present market money valuation of his reputed possessions, and upon the judgment of lenders as to whether that valuation is likely to rise or fall. In other words, loans do not control prices, but are controlled as to their amount by prices. It may be said and is true, that loaners of money have the power to lock it up and refuse to lend it at all, and may affect prices in that way. Without doubt, the volume of money effective in supporting prices is reduced by hoardings, but that is not more true of money held by loaners, than of money held by others. Furthermore, loaners, as a class, are the least likely to lock up money, because it is their business and habit to make profits

by lending it, and they rarely, if ever, do lock it up.

Of economizing expedients in the use of money, the two which are most important, are bankers' clearing houses and the practice of making deposits in banks.

Of clearing houses, little needs to be said. They are only a common agency, by means of which the great bulk of payments between banks are effected by offsets, and only the comparatively small balances are required to be met by money. The principle is the same as that of offsets in mutual accounts between merchants, and other individual persons. To describe an offsetting which dispenses with the use of money, as money itself, or as a substitute for money, or as adding to the volume of money, is as idle as it would be to describe in the same way the transactions of barter trade, which equally dispense with the use of money.

The effects of the practice of making deposits with bankers, have been the subject of protracted controversies, and there is not as yet a general acquiescence in any solution which has been proposed for the difficulties which the case seems to present.

We may conceive of a country in which it had been the general custom for persons receiving money to retain it in their own possession

until they had occasion to use it in purchases or payments, but which should adopt the different custom for persons receiving money to deposit it with some custodian, who might and did exercise the privilege of making a profit by loaning it until the depositors called for it. We may also conceive that under the new custom the depositors of the money did not continue to deal with it as if it was still in their own hands, and especially did not have the power of making purchases and payments by means of negotiable checks for such portions of it as they might choose to draw for from time to time. In such a supposed case, there would only be an increased economy in the use of money, arising from the constant active employment of a portion of it which had previously been in active employment only a part of the time. And it may be useful to observe, that so far as effecting an economy in the use of money is concerned, the supposed case would not differ from the actual case of so much of the money deposited in savings banks, as would otherwise have remained idle. Such money does not continue to be ready money for the depositors, because they are ordinarily not allowed to draw it out at pleasure, and without notice.

In the case of other banks and bankers, on the system of banking known and practised

in the United States, Great Britain, and many other countries, it is believed by some persons, that in addition to that economy in the use of money, which the practice of depositing in banks effects by converting idle into active money, there is an absolute creation of new money, when inscriptions of demand credits, available by means of negotiable checks, are made on the books of banks. They say further, that this creation is on a very large scale, because such inscriptions arise as well from loans and discounts as from deposits, and even more largely. They insist that the transfer of such credits is accepted as readily as money, and in fact is accepted as being money, in payments and purchases throughout the whole circle, often a wide one, of persons familiar with the solvency of the bank drawn upon, and that the larger part in value of commercial payments and purchases are made in that way.

Before proceeding to discuss the question whether credits with bankers are money, it will be convenient here to notice the distinction which actually exists, although it is often overlooked, between the checks drawn upon such credits, and the credits themselves. Such checks frequently pass through many hands, being accepted by many parties in succession in payments for property and in satisfaction for debts, before they are

presented to the bank upon which they are drawn. Such acceptance of checks, unless they have been certified by the banks drawn upon, is due entirely to the confidence reposed in the solvency of the drawer, and to the belief that he would not put the check into circulation unless the state of his accounts, or of his relations with the bank drawn upon, insured its payment upon presentation. The same confidence in the drawer, which causes the acceptance of his check upon a banker, would cause the acceptance of his check upon any person not a banker, to whom the check could be presented with equal convenience. Whether an inscription of credit upon a bank is money, or not, it is very plain that a check upon a bank, whatever circulation it may have prior to its presentation for payment, is not money, but only an order for money, differing in no respect of fact or principle from a similar order upon a person not a banker. A transaction of purchase or payment is closed by a check upon a bank, not finally as it would be by money, but only provisionally and upon condition that the check is paid in money by the banker, unless the holder shall prefer an inscription to his own credit on the banker's books. If the check is not paid in money, or otherwise to the satisfaction of the holder, the payment supposed to

have been made with it will have proved to be no payment, and must be made over again.

As such checks are in fact nearly always paid and therefore nearly always perform one of the offices of money, it is not to be wondered at that merchants and bankers should fall into the habit of thinking and speaking of them as money, as they think and speak in the same way of the credits of banks upon which such checks are drawn. But what is money, or not money, is not determined by the loose ideas and modes of expression of any classes of persons, but by a careful consideration of the essential attributes of money.

When a check drawn upon a bank is paid in money, the case does not seem to differ from that of an order for money upon a person not a banker which is complied with upon presentation. It is when the holders of checks upon a bank accept, in lieu of money, an inscription to their own credit on the books of the bank, that deposits in a bank, thus left undisturbed and still continuing as deposits, will certainly have performed one of the offices of money. The great number of such cases gives importance to the question, whether such deposits do thereby become money, but it is nevertheless true that the proportion of such cases is enormously exaggerated. Bankers themselves accept

nothing but money in payment for checks upon other banks which fall into their hands, and to how great an extent checks do fall into their hands is shown by the magnitude of the transactions of bankers' clearing houses.

A thing may have some of the attributes of money, and still not be money. A thing may, in a particular transaction, or as between certain parties, have all the efficiency which money could have in that transaction, or between those parties, and still not be money. A commodity which has been effective in making a purchase by way of barter, has performed one of the offices of money, but it is not made money by that fact. Credit, when sellers confide in its soundness, and are in a condition to be able to sell without exacting cash, is as good a purchasing power as money is, but that does not make it money, and unlike barter, credit does not even supersede and dispense with the necessity of using money at last.

If the question was whether deposits in such banks in Great Britain and the United States, as at the present time are alone permitted to circulate notes, are substantially the same thing, and as much entitled to be considered money, as the notes of those banks under the laws which now regulate their issue, quantity, functions, and security, it would be at once decided

in the negative by everybody. The notes of the National banks in this country are perfectly secured, whatever may become of the solvency of the banks themselves. They are a legal tender to the Government for all debts and taxes, except custom-house duties, and the notes of each bank are a legal tender for all debts due to every other bank. These functions give them a currency in all the States, and without reference to distance from the locality of the issuing bank. In Great Britain all bank notes, in excess of the amount below which it is not deemed "*reasonably possible*" that their circulation can be reduced, are secured by a gold reserve, pound for pound, and as to the principal issuer, the Bank of England, its notes are a legal-tender in three quarters of the United Kingdom. It will hardly be maintained by anybody that because such paper as these American and British bank notes, which are accepted by everybody and everywhere within the limits of their nationality, are money, the deposits in the banks which issue them must also necessarily be so.

But in whatever particular manner the issue and security of bank notes, or of Government notes, are regulated, they are decisively distinguished from bank deposits by many circumstances, of which the three following are specially noticeable:

First—That circulating notes command general acceptance, and indeed are not money unless they do so, while the availability in use, of bank credits in the deposit form, is limited to the localities in which, and the persons by whom, the reliability of such credits is actually known.

Second—That Government and bank notes are never *functus officio*, but can be employed in purchases and payments in endless succession, whereas a bank check is extinguished by a single use of it as an order for money, and a bank deposit is extinguished by the first demand that is made for its payment in money.

Third—That Government and bank notes take the place of the metals and exclude them from the circulation, in a much greater degree than bank deposits do.

It was upon the last distinguishing circumstances that Lord Overstone laid special stress in opposing the doctrine that bank deposits are money. In his testimony before a Parliamentary Commission in 1840, he said that he "*admitted a deposit and note were both debts payable on demand,*" but he added :

The difference is this : the debt (in a note) has assumed that form which makes it the *representative of metallic coin*.

His views seem always to have been, that during any considerable period the average dis-

placement of coin was exactly equal to the average circulation of bank notes, and it was in that sense that he regarded such notes as the representatives of the metals. He undoubtedly overrated the extent of the displacement.

In England, the opponents* of Adam Smith's views in respect to redeemable bank notes, have agreed with Smith and his followers that such notes displace an equal amount of the metals and do not enlarge the volume of money. The point in controversy between them was, that Smith and his disciples maintained that such notes never did and never could at any moment of time exceed the coins displaced by them, whereas it was the doctrine of the opposing school, that while bank notes could not on the average and in the long run, exceed the coins displaced, they might be, and were at some times largely above that point, and at other times largely below it. Both schools equally overlooked the fact, that to whatever extent bank notes displaced coin in any country, the coin thus displaced must reappear somewhere else, and that the total mass of money in all countries must be thereby increased, so that the share of each country, although the same proportional part of the

*Norman is the only exception I have met with in my reading, but there may have been others.

whole, would be absolutely greater, which it could not be if bank notes displaced an equal amount of coin. But even on this view, which is clearly the sound one, a mixed currency of coin and notes at a parity with coin must bear a relation in quantity to a currency of coin alone, although not a relation of exact equality.

The weight of authority in Europe is overwhelmingly on the side of the view, that bank deposits, bills of exchange, credits, checks, orders of any kind for the transfer of debts, and similar things, are not money, although having the effect of economizing the use of money. In all countries adhering to the metallic standard, legislators have uniformly accepted and acted upon that view. They have spared no care, or labor, to keep circulating notes within the limits of a reliable parity with the metals, but have never imposed any restraining regulation upon the amount of deposits with bankers, bills of exchange, checks upon banks, and other things of a similar character, and have evidently not regarded them as constituting a part of the volume of money.

In the testimony of Lord Overstone in 1840, already referred to in this chapter, he said :

A less amount of the circulating medium of the country is sufficient to perform certain functions, in consequence of that

economic process of using the money which arises out of banking deposits. The same thing exists to an enormous extent in the system of the clearing house ; but will any man in his common senses pretend to say, that the total amount of transactions adjusted in the clearing house are part of the money or circulating medium of the country? So book debts and transfers in account, throughout the whole community, will answer the same purpose. Again take the case of barter. All these are modes of economizing the use of the circulation or money of the country, But the attempt to make out that every means by which you economize the use of a thing, is in reality that thing itself, seems to me a logical process the fallacy of which is obvious.

Economizing expedients in the use of money, although they are not money, have the effect of enabling a less quantity of it to sustain a given range of prices, than would be required to sustain the same range if such expedients were not resorted to. It is in this way that the greater or less comparative resort to such expedients in different countries on the metallic standard, affects their respective proportional shares of the total mass of money in such countries. The share of each country is that amount which will sustain the range of prices imposed upon it by its commercial relations with the other countries on the same standard, and the more it resorts to economizing expedients in the use of money, the less money it will need to have, and the less money it can have. The most familiar and the most striking illustration of that, is the fact that the *per capita* use of money is

one and one-half times as great in France as in Great Britain, and according to some estimates twice as great. They are both rich, densely-populated and highly-commercial countries, but Great Britain has carried all known expedients for economizing the use of money to the highest point of perfection at present attainable, while in France, the depositing of money in banks is scarcely known outside of Paris, and is not much practiced even there. It seems to be agreed that the difference in the relative *per capita* amounts of money in Great Britain and France is caused chiefly by the different degrees in which they have adopted economies in the use of money, but it may be caused in part by other circumstances.

We can easily see that the *per capita* amount of money in any country may be influenced by its wealth, density of population, diversification of industries, activity of internal trade, and perhaps other circumstances, as well as by the extent of its resort to economies in the use of money. The relative *per capita* amount of money in countries, between which there are marked differences in the degrees to which economies in the use of money are practised, cannot therefore be a sure test of the extent to which such economies dispense with the employment of money. It must be regarded, however, as a tol-

erably good test, when no other considerable cause for diversities in the relative *per capita* amount of money can be discerned. At any rate, it seems to be the only test of experience which can be availed of; and if it is at all reliable, it shows that the estimates that economizing expedients dispense with nine-tenths of the money which would be required without them, are monstrous exaggerations. The difference in the *per capita* amount of money in Great Britain and France, is the extremest difference which can be found upon a comparison of any two countries, alike in general circumstances, but contrasting decisively in the degrees of their employment of economizing expedients in the use of money.

In respect to the effect of the bank-deposit system, considered by itself, and disconnected from other expedients to economize money, we have had a long, practical experience of it in Great Britain and in this country, where that system has been most developed. Certainly, this experience decisively negatives the theory that inscriptions of demand* credit on the books of

* As noticed in a preceding chapter, a very considerable part of bank deposits are really not demandable at pleasure, either because they have arisen from discounts made with an understanding that a portion of the proceeds should not be drawn out, or because they belong to persons who keep what is called a "*good bank account*" as a basis of a claim for future discounts.

bankers are as much money as the circulating notes of banks, and that fluctuations in the amount of such credit inscriptions affect the volume of money and consequently prices, as much as equal fluctuations in the volume of either coin, or of circulating paper kept at a parity with coin.

In Great Britain at the present time, and this has been true since 1844, the volume of money, that is to say, of gold and bank notes combined, varies only as gold is imported or exported, and only to the precise amount of such imports, or exports. That the bankers and merchants of that kingdom know, or believe that they know, that it is upon the volume of money as thus composed, and as not including bank deposits, which primarily and chiefly dominates the course of prices and of trade, is shown by the tremulous eagerness with which they watch the inflow and outflow of gold at British ports, as contrasted with the indifference with which they hear of vastly greater expansions and contractions of the amount of inscriptions of demand credits on the books of bankers. On the occasion of the payment by Great Britain to this country of the Geneva award of \$15,000,000, a sum altogether insignificant in comparison with the aggregate demand deposits with British banks and bankers, the Bank of England noti-

fied our Secretary of the Treasury that it would resist by all the means in its power, his taking any part of it in gold, and the operation was managed by means of bills of exchange, and without moving that metal. What the Bank of England feared, was the loss of \$15,000,000 in money, and not its loss in the particular form of gold. It would have equally resisted an attempt of the American Secretary of the Treasury to take out of England \$15,000,000 in bank notes, which would have contracted the British currency as much as the removal of an equal amount of gold.

In respect to the Bank of England, the law requires the weekly return and publication of various items in its condition, including its deposits, all of which are non-interest-bearing and payable on demand. Except as to that institution, no information is obtainable as to the amount of demand deposits in the English, Scotch, and Irish banks, and no very exact information as to the amount of their aggregate deposits of all varieties. Some banks publish an account of "*liabilities*," in which deposits are mixed up in unknown proportions with acceptances and other things. Few, if any of them, distinguish the different kinds of their deposits, as interest, or non-interest, bearing, or as payable on demand, or after a certain number of

days' notice. There does not seem to be a legal provision for publication of accounts, except possibly by the Scotch banks. The London *Economist* of May 17, 1879, says :

While some of the English, as well as some of the Irish, joint-stock banks publish no accounts, no English private bank ever publishes accounts at all.

On the basis of such returns as were accessible, and on its own estimates in respect to private bankers, the opinion was expressed in that number of the *Economist*, that the total bank deposits in the United Kingdom, outside of the Bank of England, and not distinguishing the different kinds of deposits, amounted in the Autumn of 1878 to 520 or 530 million sterling, and in the Spring of 1879 to 460 or 470 millions.* It would seem that British economical writers, either do not regard bank deposits payable on demand as any part of the volume of money, or regard the question of how much money there is in the United Kingdom with indifference, except when gold is coming in or going out.

From an official statement of the deposits in the Bank of England on the last day of the

* See a paper by Mr. Martin in *Journal of the London Statistical Society* for September, 1879, and a paper by Wm. Newmarch, in the *London Bankers' Magazine* for October, 1879. They show the impossibility of obtaining any accurate information as to the magnitude or fluctuations of demand bank deposits in Great Britain.

second week in each month for fifteen years, I have prepared the following statement of the maximum and minimum amount in each year, and given the months when the amounts were greatest, or least. The statement is in thousands of pounds sterling (three ciphers omitted):

	<i>Maximum.</i>		<i>Minimum.</i>
1866....	June.....27,254	..	February.....17,107
1867....	January.....27,494	..	November.....23,837
1868....	June.....27,718	..	September.....23,140
1869....	January.....24,756	..	November.....21,364
1870....	March....27,670	..	October.....23,438
1871....	July.....32,173	..	February.....24,791
1872....	April.....31,570	..	October.....26,328
1873....	April.....34,238	..	August.....23,989
1864....	March.....26,857	..	December.....21,369
1875....	October.....30,177	..	February.....22,687
1876....	October....36,185	..	January.....24,424
1877....	January.....32,759	..	November.....23,953
1878....	March.....33,709	..	September....24,333
1879....	October.....39,403	..	December.....32,273
1880....	January.....36,224	..	November.....29,153

The fluctuations are large, and some of them are sudden as well as large, as for example, \$50,835,000 in four months in 1866, \$22,890,000 in three months in 1868, \$51,250,000 in four months in 1873, and \$35,650,000 in two months in 1879.

From the 4th to the 25th of January, in the present year (1882), deposits in the Bank of England fell from £31,117,495 to £27,984,141, which is a fall of \$15,651,770, or just about the amount of the Geneva award. A loss of

only \$5,000,000 in money, at very nearly the same date, caused a "*pressure immediately*" in the London market, as appears from the following from the London *Economist* of February 4, 1882:

The whole sum in London unused and entirely at liberty, was estimated by a very competent observer, some ten or twelve years ago, as not being more than four millions (sterling), two of them being reductions which he considered the bankers might at that time make in their balances at the Bank, and two more the further amount which the Bank might conveniently spare from its reserve.

The margin at the present moment is very considerably less even than the scanty one of four millions, estimated as being free some twelve years ago. . . . When a real demand comes, even if it is no more than for a million or so, which is taken clear out of the market and locked up elsewhere, as is the case with the gold recently drawn for Paris, the market feels the pressure immediately.

In this country in February, 1881, under certain apprehensions in respect to the effect of legislation then pending in Congress, 141 National banks, scattered through twenty-four of the States, came to a common conclusion that the protection of their interests required their immediate recovery of the Government bonds which they had deposited in the United States Treasury as security for their circulating notes. They accordingly proceeded simultaneously, that is to say, within the space of two or three weeks, to deposit \$18,764,434 of lawful money in lieu of those bonds, which operated as a contraction of the volume of money to that

amount. This was a small contraction, if the volume of money includes the 1767 million dollars of inscriptions of demand credits which the Comptroller of the Currency reports to have existed in May, 1881, on the books of the National and State banks and private bankers, and exclusive of savings banks, which are said by some persons to be as truly money as coin and bank notes. But it proved to be a large enough fraction of what is really alone the money of this country, that is to say, the metals in monetary use and the government and bank notes circulating at a parity with the metals, to bring on a most remarkable stringency at the money centres. The usury upon loans in Wall Street was carried up to the unheard of rate of one per cent. per day. The impresssion produced by the consequences of this sudden contraction of the money of the country, to the extent of \$18,764,434, was profound. It also proved to be so permanent, that in February, 1882, the Senate of the United States agreed with substantial unanimity upon a provision that the aggregate of the money deposited and locked up in any one month for the purpose of withdrawing the circulation of National-bank notes, shall not exceed \$5,000,000. Contractions of bank deposits greater than that occur in the City of New York in single weeks

without noticeable consequences and attract but little attention. In the clearing-house banks of that city, and not including the private bankers, the contraction of that kind was \$8,096,800 for the week ending February 24, 1882; \$7,116,500 for the first following week; and \$4,631,100 for the next following week. At the end of this total contraction of \$19,844,600 of bank deposits in three weeks, the quoted rate of interest was below the legal rate of six per cent. per annum.

During the two years beginning May 31, 1879, the expansion of the demand deposits of the National banks, and of the aggregate demand deposits of the National and State banks and private bankers, (excluding savings banks), was enormous, as will appear from the following figures.

	<i>Deposits—in millions of dollars.</i>		
	<i>In National Banks.</i>	<i>In all banks, except Savings Banks.</i>	
<i>May 31.</i>			
1879.....	713	....	1110
1880.....	901	....	1402
1881.....	1140	....	1767

During the four months following May 31, 1881, the deposits in the National banks fell to 1083 millions.

Between May, 1879, and May, 1880, there was a great rise of prices in this country, but perhaps not much greater than may be attributed

to the additions to the metallic money and the natural reaction from the extraordinarily depressed prices of 1878, and of the first half of 1879. Between May, 1880, and May, 1881, the rise of prices was slight, and even less than the continuing additions to the metallic money might seem to have justified.

It is entirely too plain to require further illustrations, that no such consequences follow changes in bank deposits, as would be inevitable if such deposits are money like coin and circulating notes.

As already noticed at the beginning of this chapter, the doctrine that prices are controlled, not so much by the volume of money as consisting of the metals and of circulating notes, as by economies in the use of money and by various credit expedients, originated in the long controversies in England over the regulation of bank issues, of which the passage of the Bank Act of 1844 was the final outcome. It was said on one side, that such issues must fluctuate largely and disastrously, so long as they were controlled merely by the discretion of the issuers and by what are called "*the wants of trade*," and subject to no other check than a legal obligation to redeem them in coin. On the other side, it was insisted that only a few of the exchanges of trade were effected through

the employment of coin and bank notes, and that expansions and contractions of their amount were of comparatively little consequence. John Stuart Mill, who sustained the latter view, said (*Principles of Political Economy*, Book 3, Chapter 24) :

The fluctuations in the value of the currency are determined, not by its quantity, whether it consists of gold or of paper, but by the expansions and contractions of credit.

Questions respecting the regulation of [bank notes] so very small a part of the general mass of credit, cannot appear to us of such momentous import as they are sometimes considered.

Indeed, Mill had the courage to push these doctrines to their logical conclusion, by declaring that under favorable circumstances bank deposits and checks on banks might dispense with money altogether. In Chapter 12 of his *Principles*, &c., he said :

We just now made the imaginary supposition that all persons dealt with a bank, and all with the same bank, payments being universally made by cheques. In this ideal case, there would be no money anywhere except in the hands of the banker ; who might then safely part with all of it, by selling it as bullion, or lending it to be sent out of the country in exchange for goods or foreign securities. But though then there would be no money in possession, or ultimately, perhaps, even in existence, money would be offered, and commodities exchanged for it, just as at present. People would continue to reckon their incomes and their capitals in money, and to make their usual purchases with orders for the receipt of a thing which had literally ceased to exist.

This doctrine, that the volume of money is of little or no consequence, was not known in

this country outside of a few theorists, until about six years ago. Down to that time, the contrary view was accepted on all sides in legislative and political discussions. In respect to the paper part of money which is controllable by law, expansions of it were held up to public odium as "*inflations*," and when any degree of contraction of it was deemed to be necessary, it was agreed that it ought to be made with careful slowness, in order to avoid dangerous disturbances of values. The contests over the enlargement or diminution of the greenbacks, by only a few millions, provoked an earnestness of discussion which is still fresh in public recollection.

It was not until the commencement, in 1876, of the contest in the United States over the question whether the coin portion of the money of the commercial world should consist of two metals, or of one only, that views like those just quoted from Mill were maintained in this country by any considerable number of persons, or by anybody connected with public affairs, or taking part in legislative debates. The point made most conspicuously against the single metallic standard was that made by Hamilton in 1791, that it "*abridged the quantity of the circulating medium*," to which the principal reply has been, that in more modern times the volume

of money has become comparatively unimportant, or that at any rate, even if it might be dangerous to expand it, the proposed degree of contraction could work no injury, on account of the great multiplication of banking credits and other substitutes for money.*

Instead of replying in a controversial way to the views of Mill just quoted, and to the similar views recently advocated in some quarters in this country, I prefer to deal directly with the subject itself, and to submit to the reader a summary of my own conclusions in respect to it, without undertaking to note all exceptional cases and conditions.

Many things are spoken of as economizing the use of money which have no such effect, as for example, credit used in various forms as a purchasing power, and such bills of exchange, drafts and checks, as are only used as orders for money by the persons in whose favor they are drawn, and are not passed from hand to hand in lieu of money. Of many other things which do economize the use of money, the effect is extremely exaggerated.

* Through the machinery of the bank, with its system of checks, bills of exchange, and clearing houses, large amounts of business may be settled without the use of coin or circulating notes. Coin and currency are but the small change used in trade. Checks and drafts are substitutes for money.—Annual report (1881) of the U. S. Comptroller of the Currency.

The use of money is economized in many ways, as by bringing into circulation by the system of savings and other banks sums which would otherwise have remained idle in private hoards; by payments by offsets through such devices as bankers' clearing houses; and by employing in lieu of money, in transactions requiring a medium of exchange, such substitutes as transfers of inscriptions of demand credits on the books of bankers, and as transfers of checks, drafts, bills of exchange, and other orders for money, during the period between the drawing of them and their presentation for payment.

Of some economizing expedients in the use of money, the effect is variable. If the deposit system is already established, the deposits in existing banks increase at some times and decrease at others, and the same thing is true of the amount of bills of exchange in circulation. These fluctuations are both of them most generally a consequence of preceding fluctuations in the volume of money, but in that case always in excess of the fluctuations in money, and intensifying their effect. But such fluctuations* of banking deposits and bills of exchange will be

* Banking statistics represent trading totals; they rise and fall with prices; they expand with commercial prosperity; they contract in the day of bad trade.—Paper read by George H. Pownall, October 19, 1881, before the London Institute of Bankers.

caused by fluctuations in prices, however arising, and they do sometimes arise and continue temporarily from variations in the temper of trade, when there is no change in the quantity of money. But fluctuations in prices thus arising, and in bank deposits and bills of exchange, as one of their effects, cannot proceed long or far in either direction without encountering the impassable barriers of the maximum and minimum imposed upon them by the volume of money.

There is another class of economizing expedients in the use of money, the employment of which is not fluctuating in amount, but tends steadily to become more common, as countries advance in commercial development and in political stability, and without reference to oscillations in the volume of money and in prices. This is true of bankers' clearing houses. In respect to the practice of making deposits in banks, it is being all the time extended into new localities and among new classes. The extension of economizing expedients of this kind, is a force acting constantly in the direction of helping to sustain prices or check their fall, but it is not a great force, and it is an exceedingly small one in comparison with some of the forces now acting in the opposite direction, such as the enormous current expansion in the popu-

tion, wealth, and exchanges of the world, with their corresponding requirements of money. In all commercial countries, the profit derivable from these economizing expedients is a strong and constant inducement to resorting to them, and we may therefore be quite sure that they are now availed of everywhere to as great an extent as is possible under present circumstances. It is not apparent in what way they can be carried further, either in the United States, or in Great Britain, but it is not safe to set limits to the possibilities of human invention. In other countries, there is more room for a greater future resort to them, but progress in that direction has been exceedingly slow heretofore, and is likely to be so hereafter. It was not until the year 1853, that a banker's clearing house was established in the City of New York, where banks have been so numerous since the beginning of this century, although the example of such a clearing house had been set in London long before the close of the last century. In most countries it is difficult to change National habits of any kind.*

* The following statement appears in a recent publication of Victor Bonnet, a French writer :

M. Pinard, manager of the Comptoir d'Escompte, testified before the Commission of Inquiry, that the greatest efforts had been made by that institution to induce French merchants and shopkeepers to adopt English habits in respect to

Taking the whole situation into account, the apprehensions of mankind as to the effect of a reduction of metallic money from a failure of the mines to increase their yield in correspondence with the increasing demand, or from any other cause, are not likely to be allayed by the suggestion that the efficiency of the money in existence may be augmented by more clearing houses, and by a greater use of banks of deposit.

In respect to the effect of economizing expedients to increase the efficiency of money, and thereby to either raise prices or check their fall, while it will be first felt in the country resorting to such expedients, it will finally be diffused and in an equal degree over all countries. The relation of prices, reckoned in the metals, between countries commercially connected, cannot be permanently changed by anything done in one of them. The ultimate result to any country, or group of countries, of increasing the efficiency of money by economizing expedients in the use of it in a greater degree than it is increased in that way elsewhere, must be, that the proportion of money to population and exchanges in such country, or group of countries, will be reduced so as to be less than it the use of checks and the keeping of bank accounts, but in vain; their prejudices were invincible; it was no use reasoning with them. They would not do it, because they would not.

is elsewhere. This is illustrated in comparing France and Great Britain, between whom the equilibrium of prices is preserved, only because the greater volume of French money relatively to population and commerce is balanced by the greater efficiency of British money.

At every given time, whatever may be the increased degree of efficiency given to money by economizing expedients, fluctuations in its volume will as effectually influence fluctuations in prices, as if the efficiency of money had not been increased at all. In mathematics, the proportion between the duplications of two sums, is the same as it is between the sums themselves. In mechanics, the effect of power at the point of application may be increased by leverage, but with a given amount of leverage the effect is exactly in proportion to the power. A larger load can be hauled by the same power over a macadamized road than over a dirt road, and a still larger one over a railroad. But to whatever degree of perfection a road may be brought, as respects economizing the power required in hauling over it, it will still be true at every given time, that the weight which can then be hauled over it will vary precisely as the power varies. In like manner, any expedients which increase the efficiency of one volume of money by a certain percentage, would

at the same time increase the efficiency of any other volume of money in an equal proportion. The same monetary work can be done, and the same scale of prices can be sustained, with a less *per capita* circulation in Great Britain than in France, but in each of these countries at every given time, and in the actual degree at such time of its employment of the expedients which economize money, prices will fluctuate, other things being equal, as the *per capita* circulation fluctuates.

Expedients which economize the use of money, or increase its efficiency, do undoubtedly produce some of the effects produced by additions to the volume of money, but it is confounding things essentially distinct to describe such expedients as additions to the volume of money. Nobody would think of describing a bankers' clearing house in that way. Demand credits on the books of bankers, checks, drafts, and bills of exchange cannot be described in that way with any more propriety. Being merely promises to pay money, or orders for its delivery, they cannot exist independently of it, and cannot supply its place. Nor can they counterbalance a contraction of money, because their own volume always contracts at the same time, and in a somewhat greater ratio, whereby the evil is rather aggravated than mitigated.

The monetary theories of the metallic school can only be sustained by accepting each and all of the following propositions:

First, that, other things being equal, the value of money depends upon its quantity.

Second, that the supply of the metals is tolerably steady, and that, being furnished by nature, it is independent of the ignorant or corrupt mismanagement of governments.

Third, that if Government or bank notes form a part of the circulation, they ought to be kept at a parity with coin by redemption or limitation of quantity, and that under such a regulation, the mixed currency of coin and paper is either the same in quantity as a currency of coin alone, or that the relation of quantity between the mixed currency and an exclusively metallic currency is such, that their fluctuations of volume are approximately the same.

Fourth, that in the case of a coin currency it is only the coin, and in the case of a mixed currency of coin and of notes, it is only the aggregate of the coin and notes, which constitutes the volume of money.

No degree of steadiness of proportion between the demand for money and the supply of coins, or of coins and circulating notes kept at a parity with coin, will assure steadiness in the quantity and value of money, if an indefinite

number of other things, such as bank deposits, bills of exchange, credit used as a purchasing power, and checks on banks, are component parts of the volume of money, and if furthermore, the quantity of such other things fluctuates, not in any degree of correspondence with, but independently of, fluctuations in the volume of coin, and of circulating notes kept at a parity with coin. And especially will this be true, if some calculations currently made are correct or approximate correctness, that these other things do in Great Britain, and in the United States, constitute nine-tenths of the volume of money, so that coin, and government and bank notes, are reduced to such an insignificant fraction of the whole money, as to exert no appreciable influence over its value. If mankind can be prevailed upon to accept such doctrines, they will not much longer submit to the enormous costs and sacrifices of procuring the material of coins, nor will they much longer vex themselves with labors and anxieties in order to maintain such a regulation of the quantity of circulating notes as will keep them at a parity with coin.

THE END.

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